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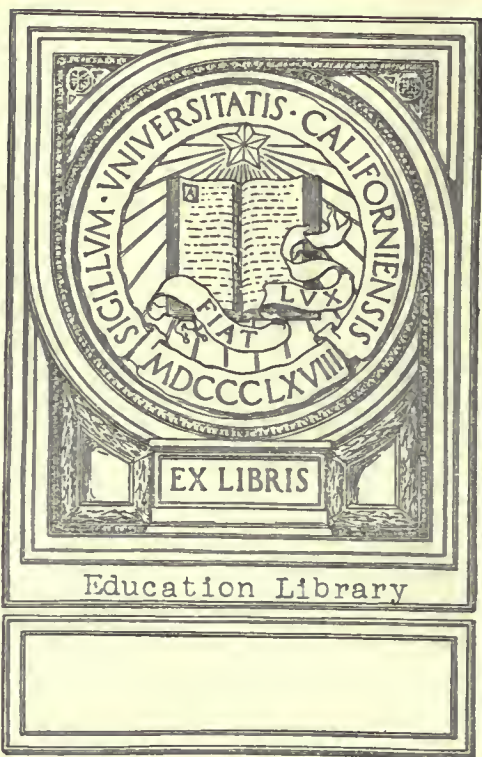


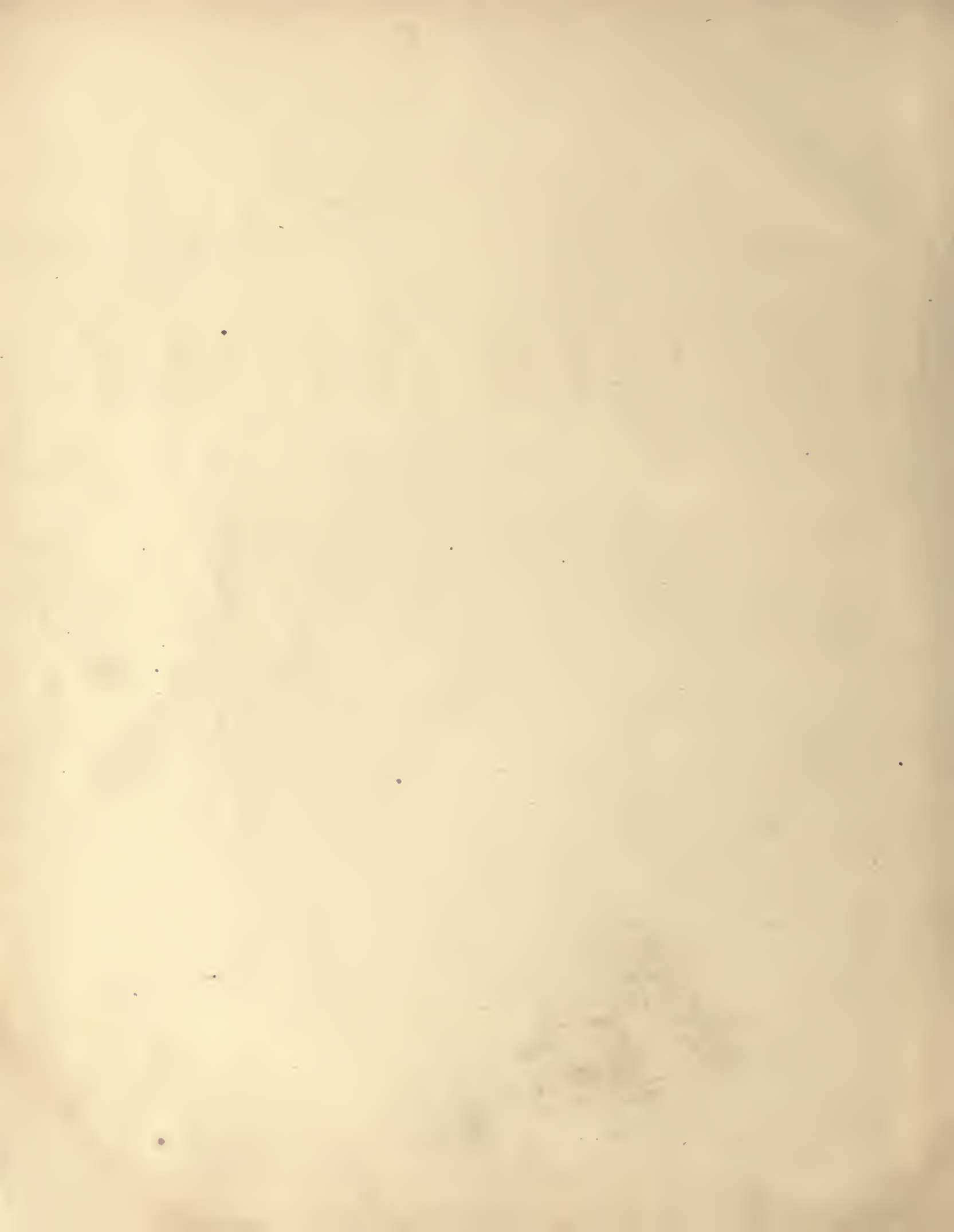
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PACIFIC STATES AND TERRITORIES

GRAMMAR
SCHOOL
GEOGRAPHY

SWINTON





GRAMMAR-SCHOOL

GEOGRAPHY

Physical, Political, and Commercial

BY

WILLIAM SWINTON

GOLD-MEDALIST FOR GEOGRAPHY, PARIS EXPOSITION, 1878, AND AUTHOR OF SWINTON'S GEOGRAPHICAL SERIES, WORD-BOOK
SERIES, OUTLINES OF THE WORLD'S HISTORY, ETC.

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PREFACE.

THIS "Grammar-School Geography" is intended as the higher book of a two-book series, in which the author's "Introductory Geography" is designed to serve as the elementary manual.

In the "Complete Course in Geography" (first published in 1875) a leading aim of the author was to realize what he deemed a great desideratum in the treatment of the geography of the United States. This want, and his own plan for filling it, he indicated in the following sentences in the Preface to the work just named:—

"The need of a much more minute and detailed study of local geography than is possible with existing text-books is becoming deeply felt. The dozen or the score of vague, because generalized and colorless, lines usually devoted to great states like New York or Pennsylvania, Ohio or Illinois, are poorly fitted to furnish a pupil with such equipment of geographical knowledge as is necessary either for practical use or ordinary intelligence. In the present book an effort is made to meet the desideratum of fullness on each state, and at the same time to avoid the danger of overtasking the pupil by the device of a double text on the United States. There is in the case of each state, 1. A general text, which comes first, and is printed in the larger type: this is to be studied by *all classes*. 2. A special geography of each state, which is designed for use only by classes in the state under review. It is hoped that the elastic arrangement of a general and a special text will meet all requirements."

The plan received the emphatic approval of teachers, and this approval has resulted in the adoption of the "Complete Course" to an extent unsurpassed, if not unparalleled, in the history of geographical publication. It is, indeed, the very fullness of acceptance accorded the theory of an enlarged text of the states that has prompted the publication of the present work; for it soon became manifest that a still more liberal allowance of special state geography than even that given in the volume just named was called for by many teachers. In order to supply this demand, the author has in this book adopted the plan of confining to a general treatment the text of the several states, supplementing this in special editions by the detailed geography of individual states or sections. To those who prefer this arrangement the "Grammar-School Geography" will commend itself, while teachers who desire a somewhat full

exposition of the geography of all the states will find their wish met in the "Complete Course." It will thus be seen that the two are independent books, differing in structure because educationists differ in taste.

To this explanation of the relation of the present work to the other works of the geographical series by the same author may now be added a few words as to the general plan of the book.

The "Grammar-School Geography" aims to strike a just balance between conflicting theories of geographical teaching, and to embody what is best in the modern methods. There are those who regard Physical Geography as the all in all, and those who regard Political Geography as the all in all. The author has sought to avoid the one-sidedness of each. Physical and so-called "Political" Geography are treated as inseparable, as one subject, and the two so blended that the physical aspects and attributes of the globe and man's doings on its surface present themselves to the pupil's mind, not as isolated phenomena, but as a connected whole.

For the study of the Physical Geography of the several grand divisions provision has been made in special maps, unencumbered by the names of countries or places, but presenting in clear view the natural features of the continent, its vegetable products, its characteristic animals, and its mineral resources. The physical maps are further supplemented by relief views, which are of striking value in presenting to the eye the great surface-features of the land masses. A series of systematic questions and exercises faces each of the physical maps. The Physical Geography, though necessarily brief, presents a condensed view of the contour, surface, drainage, vegetation, animals, and resources of each of the grand divisions. It is freed from needless technicalities, and fitted for easy comprehension by pupils in the grades for which this book is designed.

The Political Geography, or descriptive text of countries, follows the Physical Geography of the grand divisions. The aim here has been to make a compact text, in which the major factors of a nation's civilization—its resources, industries, and commerce—shall be brought prominently to view; and, for

the fuller treatment of these, space is gained by the omission, first, of all merely topographical matter (a knowledge of which is gained from the study of the map), and, secondly, by the complete ignoring of the conventional jejune accounts of ethnological characteristics, manners, customs, religions, &c. The descriptive text is accompanied by political maps the study of which is secured by full and varied exercises. Where the importance of particular countries demands it, special maps are given. Thus, in the case of Europe, in addition to the general physical and political maps, special maps are added of Great Britain and Ireland, France and Switzerland, the German Empire, Belgium and the Netherlands, Austro-Hungary, and the Turkish Empire. So, in the case of Africa, the general physical and political map is supplemented by a special map of Equatorial Africa, showing the latest results of discovery and exploration, thus giving us a chart well studded with names of peoples and cities, where, till lately, in the words of Swift, geographers

"O'er unhabitable downs
Place elephants for want of towns."

The treatment of commercial and industrial geography is, perhaps, the feature which most markedly distinguishes this volume from the old-style text-books. A knowledge of these important but neglected subjects is secured, first by a careful statement of the industries of each country and the kind of productions it sends into the channels of trade, and, secondly, by a comprehensive view of the commerce of the world presented in a map showing the one hundred principal seaports, the articles

shipped from each, the steamer routes, submarine cables, and international lines of telegraphic communication. Ample exercises, topically arranged, accompany the map. In like manner, the domestic and foreign commerce of the United States is illustrated by a map showing the areas of the great staples, and productive resources, — the regions of corn, wheat, sugar, tobacco, stock-raising, coal, iron, and other mineral deposits, the lines of railroad that transport these articles to the seaboard, and the ports from which they are shipped.

Great care has been taken, in the construction of this work, to make it in the best sense a *text-book*. Among the features which it is hoped teachers will notice with satisfaction are the following two: 1. The paragraphs are cast in a form convenient both for memorizing and recitation. By introducing each paragraph with bold type, a suitable question spontaneously frames itself in the minds of pupil and teacher, thus obviating the old and inconvenient form of questions far removed from the text. 2. The method of study pursued by the best teachers being largely topical, ample provision has been made to further this plan, by numerous carefully constructed topical synopses, reviews, tables, and questions.

A high standard of excellence in the artistic, cartographic, and mechanical execution of geographical text-books has recently been established. To this fact due regard has been had by the publishers; and the merits of the "Grammar-School Geography" in the particulars just named will be sufficiently evident to those who examine it.

WILLIAM SWINTON.

NEW YORK, April, 1880.



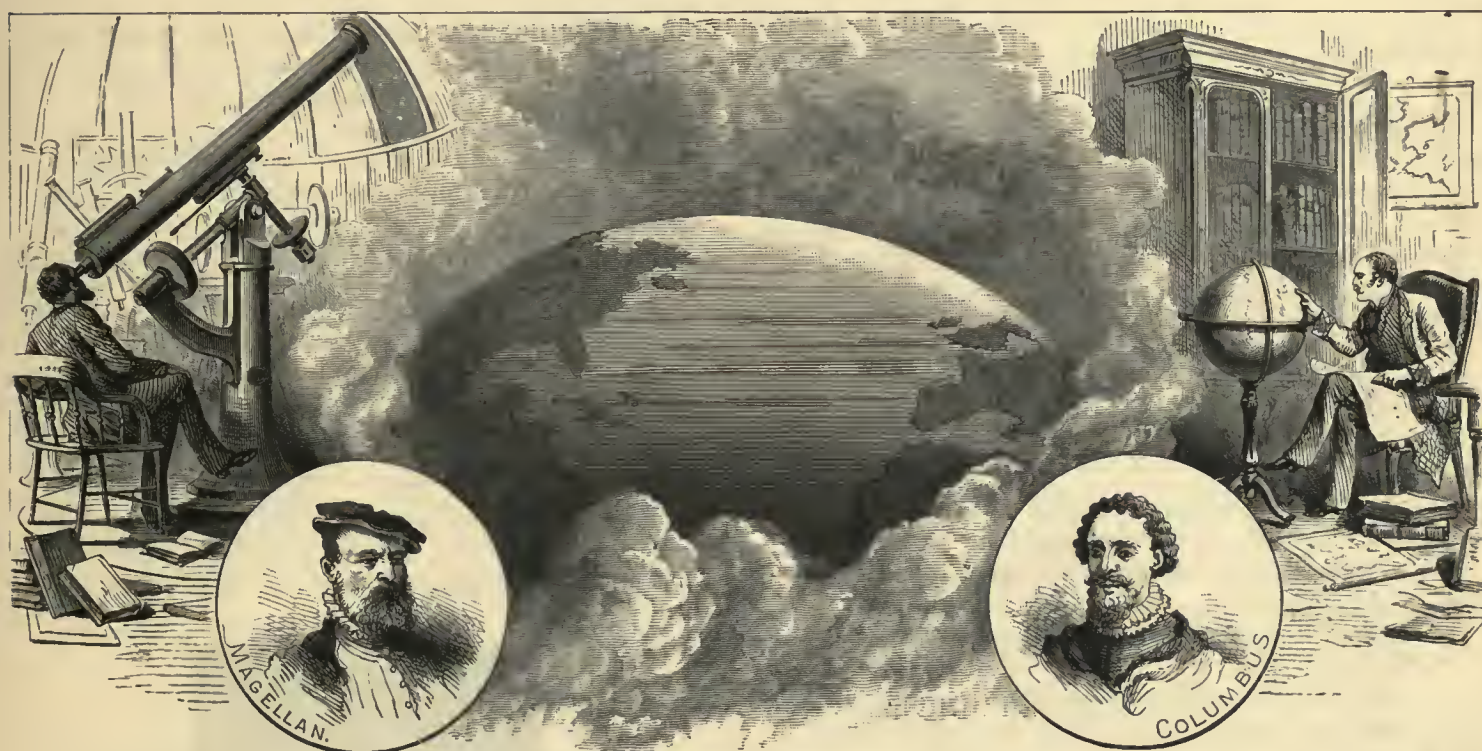
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GEOGRAPHY.



INTRODUCTION.

GEOGRAPHY AND ITS DIVISIONS.

1. **Geography** is a description of the surface of the earth, of the countries into which it is divided, and of the people that inhabit them.

2. **Its Divisions.**—The earth may be considered in three different relations: 1. In its relation to the solar system; 2. In its relation to nature; 3. In its relation to man.

Hence arise three divisions of geography,—*Mathematical Geography*, *Physical Geography*, and *Political Geography*.

3. **Mathematical Geography** treats of the earth as a planet,—its form, size, and motions; its division by circles;

and the art of constructing maps with the aid of these circles.

4. **Physical Geography** treats of the earth in its natural divisions, and its relations to the physical laws by which it is governed.

5. **Political Geography** treats of the earth as divided into countries, and of the condition of the people inhabiting them.

6. **Illustrations.**—That the United States is in the North Temperate Zone is a fact of *Mathematical Geography*; that off the eastern coast of the United States is an ocean current called the Gulf Stream, which modifies our climate, is a fact of *Physical Geography*; that the United States is a republic is a fact of *Political Geography*.

DEFINITIONS IN MATHEMATICAL GEOGRAPHY.

REFERENCE TABLE OF GEOMETRICAL TERMS.

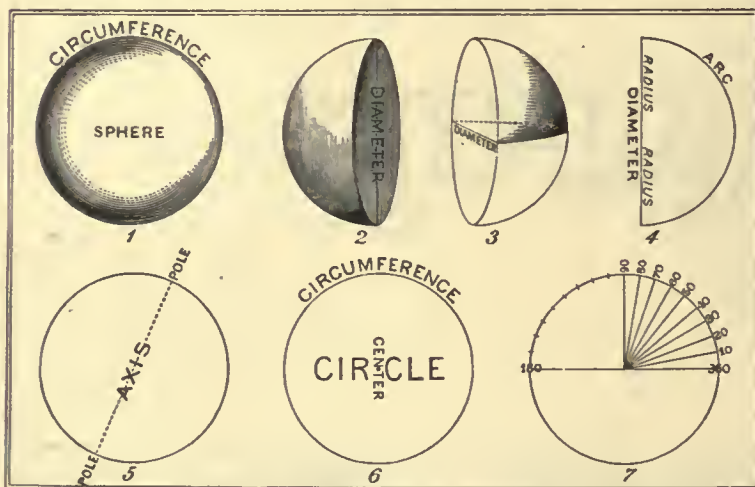


DIAGRAM OF MATHEMATICAL FIGURES.

7. A **sphere** is a solid bounded by a surface all points of which are equally distant from a point within called the center.

8. The **circumference of a sphere** is the curved line encompassing it.

9. The **diameter of a sphere** is a straight line passing through the center, and terminating in the circumference.

10. The **axis** is that diameter of a sphere upon which it rotates.

Rotation is the movement of a body upon its axis.

Revolution is the movement of a body or point around another body or point.

11. The **poles** are the points on the surface of a sphere at the extremities of its axis.

12. A **plane** is a surface upon any part of which a straight line may be drawn.

13. A **circle** is a plane bounded by a curved line all points of which are equally distant from a point within called the center.

14. The **circumference of a circle** is the curved line which bounds it.

Though in geometry there is the distinction above noted between a circle and its circumference, in geography the term "circle" is generally used as synonymous with "circumference."

15. Circles of the sphere are divided into great circles and small circles.

16. A **great circle** is one that divides a sphere into two equal parts.

17. A **small circle** is one that divides a sphere into two unequal parts.

18. **Degrees.**—Every circle (circumference), whether great or small, is divided into 360 equal parts, called degrees, and marked thus, — 360° . The $\frac{1}{60}$ part of a degree is called a minute, marked thus, — $1'$. The $\frac{1}{60}$ part of a minute is called a second, marked thus, — $1''$.

I.

SHAPE, SIZE, AND MOTIONS OF THE EARTH.—DIRECTION.

I. SHAPE OF THE EARTH.

19. The shape of the earth is nearly that of a sphere; in exact terms, an *oblate spheroid*.

Spheroid means like a sphere; *oblate* means flattened at two opposite sides; and an *oblate spheroid* contrasts with a *prolate spheroid*, which is a sphere extended at any two opposite sides. An orange is an example of an oblate spheroid; and a lemon, of a prolate spheroid.

II. SIZE OF THE EARTH.

20. The circumference of the earth is nearly 25,000 miles; its diameter nearly 8,000 miles.

1. The earth, being flattened at the poles, has a longest and a shortest diameter, and consequently a greatest circumference. The exact figures are, —

Longest diameter (equatorial) . . . 7,925.65 miles.	} Difference of 26.48 miles.
Shortest " (axial) . . . 7,899.17 "	
Greatest circumference . . . 24,899 "	

11. The surface of the earth contains nearly 200,000,000 square miles.

III. MOTIONS OF THE EARTH.

21. The earth has two motions, — the diurnal and the annual motion.

22. The **diurnal motion** of the earth is its daily rotation on its axis (Def. 10).

The direction of the rotation is from west to east, causing the sun to appear to rise in the east, and set in the west.

23. The **principal effect** of the diurnal motion of the earth is the alternation of day and night.

24. The **annual motion** of the earth is its revolution around the sun in a period of nearly 365 $\frac{1}{4}$ days.

The earth's orbit is its path around the sun, and the plane of its orbit is the level surface included within the orbit. The earth's axis inclines to the plane of its orbit $23\frac{1}{2}$ degrees. This inclination is the same in every part of the orbit, because the North Pole continually points toward the North Star.

25. The **principal effect** of the annual motion of the earth, in connection with the inclination and unvarying direction of the earth's axis, is the change of seasons.

IV. POLES AND DIRECTION.

26. The poles of the earth (Def. 11) are named the North Pole and the South Pole. The North Pole is the pole nearest the North Star; the South Pole is the opposite extremity of the earth's axis.



THE NORTH STAR.

The North Star is a bright star in the constellation of the Lesser Bear (Ursa Minor). Two stars called the Pointers, in the constellation of Ursa Major, point very nearly to this star.

27. Direction on the surface of the earth is named with reference to the points of the horizon, or circle where the earth and the sky seem to meet.

North is that point of the horizon towards which one's shadow falls at noon. South is the opposite point.

Facing the north, the right hand is towards the east, the left hand towards the west.

I. The *cardinal points* are north, south, east, and west. The *semi-cardinal points* are those midway, namely, north-east, south-east, south-west, and north-west.

II. The *compass* is an instrument by which the points of the horizon may be exactly ascertained. It consists of a card, representing the horizon, and marking the cardinal and semi-cardinal points. Over this, and swinging freely on a pivot, is a magnetic needle, which has the remarkable property of pointing nearly to the north.

II.

GEOGRAPHICAL CIRCLES.

I. KINDS OF CIRCLES.

28. Geographical circles are lines imagined to be drawn on the surface of the earth. They consist of great circles (Def. 16) and small circles (Def. 17).



EQUATOR.

29. The great circles are the Equator and the meridian circles. The small circles are the parallels.

II. EQUATOR AND MERIDIANS.

30. The *Equator* is the great circle midway between the poles. It divides the earth into a Northern and a Southern Hemisphere.

31. *Meridian circles* are great circles crossing the Equator at right angles, and intersecting at the poles. Each meridian

circle divides the earth into an Eastern and a Western Hemisphere.

32. A *Meridian* is half a meridian circle, and extends from pole to pole.



MERIDIANS.

III. PARALLELS.

33. *Parallels* are small circles parallel to the Equator. They comprise the tropics, the polar circles, and the parallels of latitude.

34. The *tropics* are two parallels, each $23\frac{1}{2}^{\circ}$ from the Equator. The tropic $23\frac{1}{2}^{\circ}$ north of the Equator is called the

Tropic of Cancer; the tropic $23\frac{1}{2}^{\circ}$ south of the Equator is called the Tropic of Capricorn.

35. The *polar circles* are two parallels, of which the northern, $23\frac{1}{2}^{\circ}$ from the North Pole, is called the Arctic Circle; and the southern, $23\frac{1}{2}^{\circ}$ from the South Pole, the Antarctic Circle.

III.

LATITUDE AND LONGITUDE.—ZONES.

I. GEOGRAPHICAL POSITION.

36. *Geographical position* is determined by means of parallels and meridians, and is stated in terms of latitude and longitude.

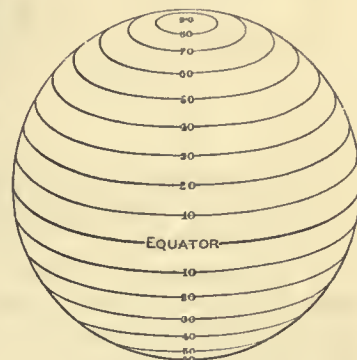
II. LATITUDE.

37. *Latitude* is distance north or south from the Equator.

It is represented on globes and maps by parallels of latitude, and is reckoned in degrees.

38. *Latitude* is reckoned thus: North latitude, from the Equator, where the latitude is zero, to the North Pole, which is in 90° north latitude; south latitude, from the Equator to the South Pole, which is in 90° south latitude.

The length of every degree of latitude is $69\frac{1}{2}$ statute miles.

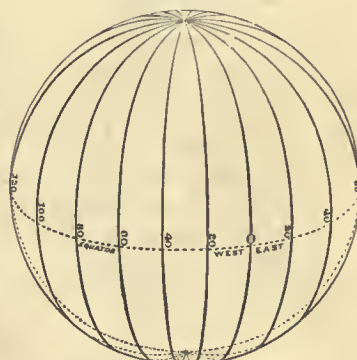


PARALLELS OF LATITUDE.

III. LONGITUDE.

39. *Longitude* is distance east or west from some chosen meridian, called the prime meridian. It is measured in degrees on any parallel or on the Equator.

Prime Meridians.—The meridian of the British Royal Observatory at Greenwich, near London, Eng., is the prime meridian generally used. The meridian of Washington also is used in our country. In this book the numbers at the top of the maps indicate longitude counted from the Greenwich meridian; and those at the bottom, longitude counted from the Washington meridian.



MERIDIANS OF LONGITUDE.

40. *Longitude* is reckoned from the prime meridian, where the longitude is zero, both eastward and westward half-way round the globe. Thus there are 180° of east longitude, and 180° of west longitude.

I. The length of a degree of longitude at the Equator is $69\frac{1}{2}$ statute miles: but, as the meridians gradually approach one another till they meet at the poles, the length of a degree of longitude decreases proportionately, and at the poles the longitude is zero.

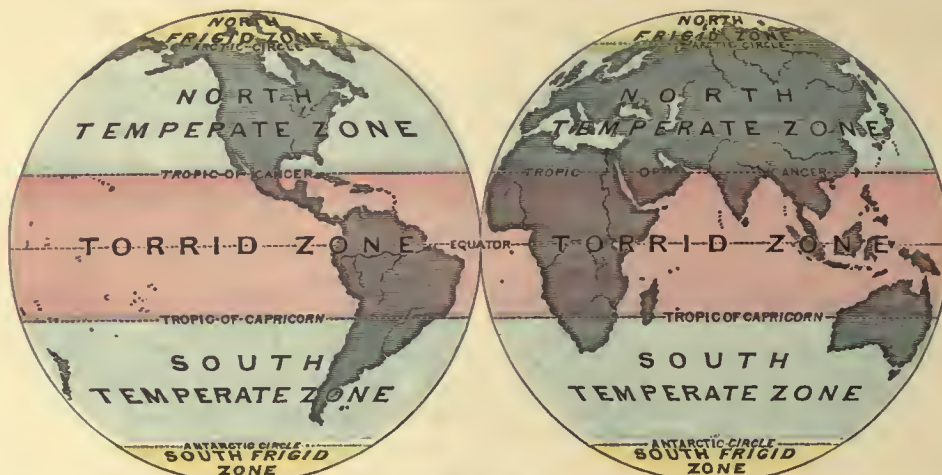
II. If the figures or degrees marked on the Equator to measure longitude increase from left to right, the longitude is east; if from right to left, it is west.

IV. ZONES OF CLIMATE.

41. The *zones of climate* are broad belts of the earth's surface parallel to the Equator, and bounded by the tropics and the polar circles.

42. The zones are five,—one Torrid, two Temperate, and two Frigid Zones.

43. The *Torrid Zone* extends from the Tropic of Cancer to the Tropic of Capricorn, or 47° = about 3,250 miles.



THE ZONES.

The Torrid Zone is marked by great and uniform heat, with two seasons,—the rainy and the dry season. The days and nights vary little in length.

44. The **Temperate Zones** lie between the tropics and the polar circles,—the North Temperate Zone, between the Tropic of Cancer and the Arctic Circle; and the South Temperate Zone, between the Tropic of Capricorn and the Antarctic Circle. Each is 43° (= nearly 3,000 miles) wide.

The Temperate Zones are marked by the four seasons, with hot summers and cold winters. The days and nights vary in length more than in the Torrid Zone.

45. The **Frigid Zones** are distinguished as the North Frigid Zone, between the Arctic Circle and the North Pole; and the South Frigid Zone, between the Antarctic Circle and the South Pole. Each extends $23\frac{1}{2}^\circ$ from the pole as its center.

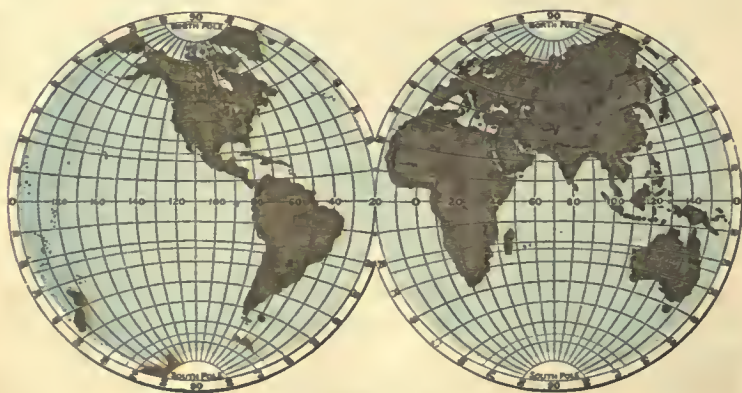
The Frigid Zones are marked by a long and intensely cold winter, and a short, though comparatively warm, summer. The days lengthen towards the poles, where day and night are each six months in length.

IV.

MEANS OF GEOGRAPHICAL STUDY.

I. GLOBES AND MAPS.

46. A **terrestrial globe** is a sphere representing the form of the earth, the geographical circles, and the outlines of the earth's surface.



HEMISPHERE MAP.

47. A **map** is a representation of the whole or part of the earth's surface on a plane (Def. 12).

II. MAP OF THE WORLD.

48. A representation of the entire surface of the earth on a plane is generally made in one of two ways:—

49. **First Method.**—By the **hemisphere map**, in which the sphere of the earth is assumed to be divided into an Eastern and a Western Hemisphere. Each of these is represented by a circle, within which the geographical lines and the surface-outlines are drawn.

I. The Eastern Hemisphere comprises that half of the earth's surface (180 degrees) extending from the 20th meridian west of Greenwich eastward to 160° east longitude. The Western Hemisphere comprises that half of the earth's surface (180 degrees) extending from the 20th meridian west of Greenwich westward to 160° east longitude.

II. This meridian was originally chosen by geographers as the line of separation between the two hemispheres, because it was supposed to pass through Ferro (one of the Canary Islands), the most western land known to the ancients. The permanent convenience of the selection, however, is that it permits nearly the whole of the Eastern Continent to be represented in the map of the Eastern Hemisphere, and the whole of the Western Continent in that of the Western Hemisphere.

III. It will be observed, (1) that the parallels do not seem to be parallel with one another,—they are drawn as they are, in order to represent the rotundity of the earth; (2) that the meridians are drawn from top to bottom in such a way as to show the globular form of the earth,—they must all, however, be *supposed* to cross the Equator at right angles, and the *direction of the meridians indicates due north and south*.

50. **Second Method.**—By **Mercator's map**, in which the form of the earth is assumed to be that of a cylinder.



MERCATOR'S MAP.

Mercator's map, named after its inventor, Mercator, is designed for the use of mariners. Its value is in showing all parts of the earth at one view, and in their true *bearings*; but it distorts the form of the continents and oceans by their expansion toward the poles.

TOPICAL SYNOPSIS FOR REVIEW.

Subject Defined	{ I. Geography and II. Its Subdivisions	{ Mathematical. Physical. Political.
Geometrical Terms	{ I. Sphere. II. Circumference of Sphere. III. Diameter of Sphere. IV. Axis. V. Rotation. VI. Revolution. VII. Poles. VIII. Plane.	{ IX. Circle. X. Circumference of Circle. XI. Great Circle. XII. Small Circle. XIII. Degree { Minute. Second.
Shape, Size, and Motions of the Earth	{ I. Shape of the Earth II. Size of the Earth III. Motions of the Earth IV. Poles V. Points of Direction	{ Approximate Form. Exact Form. Circumference. Diameter { Longest. Shortest. Greatest Circumference. Rotation { On what. In what time. Effect. Revolution { Around what. In what time. Effect. North. South. Cardinal. Semi-cardinal.
Geographical Circles	{ I. Definition. II. Great Circles III. Small Circles.	{ Equator { Northern Hemisphere. Southern " " Meridian Circles. . . { Eastern " " Western " " Meridian Tropics { Of Cancer. Of Capricorn. Polar Circles { Arctic Circle. Antarctic " " Parallels of Latitude.
Latitude, Longitude, and Zones.	{ I. Geographical Position. II. Latitude. III. Longitude IV. Zones	{ Definition. How reckoned. Length of Degree. Definition. How reckoned. Length of Degree . . { At Equator. How varying. Torrid { Extent. Characteristics. Temperate { North. South. Characteristics. Frigid { North. South. Characteristics.
Geographical Appliances.	{ Terrestrial Globe. World-Map	{ Hemisphere. Mercator's.

DEFINITIONS IN PHYSICAL GEOGRAPHY.



YOSEMITE VALLEY, CALIFORNIA.

I.

DIVISIONS OF THE LAND.

I. LAND-FORMS.

51. The surface of the earth consists of land and water, about one-fourth being land, and three-fourths water.

52. The land-surface is divided into two continental masses, called the Eastern Continent and the Western Continent; and numerous smaller bodies, called islands.

53. The Eastern Continent, or Old World, is in the Eastern Hemisphere, and comprises the three grand divisions of Europe, Asia, and Africa. In the Eastern Hemisphere, also, is the continental island of Australia.

54. The Western Continent, or New World, is in the Western Hemisphere, and comprises the grand divisions of North and South America.

Some geographers apply the term "continent" to each of the *grand divisions* of land, and, including Australia, make six continents, — Europe, Asia, Africa, Australia, North America, and South America.

55. An island is a portion of land smaller than a continent, and surrounded by water.

I. Islands are classed as, —

1. *Continental* islands, which are situated near one of the continents, of which they appear to be detached parts.
2. *Oceanic* islands, which are situated in mid-ocean.

II. An *archipelago* is a group or cluster of islands.

III. The chief difference between a continent and an island is one of size: accordingly Australia may be regarded either as the smallest continent or the largest island.

56. The coast is that part of the land which borders the water; the *coast-line*, the irregular line formed by the meeting of the land and the water.

57. *Classification*. — The natural divisions of land are classified by *shape* as coast-lands, and by *height* as surface-lands.

I. Contour, or shape, is the form of a body of land as determined by its coast-line.

Relief, or height, is the elevation of a body of land above the level of the sea.

II. These terms give rise to the following classification: —

Contour-forms.	{	<i>Peninsula.</i> <i>Cape.</i> <i>Isthmus.</i>	Relief-forms.	{	<i>Lowlands.</i> <i>Highlands.</i>	{	Plain. Valley. Plateau. Mountain.

II. CONTOUR-FORMS.

58. The divisions of land by shape, or contour, are *peninsulas*, *capes*, and *isthmuses*.

59. A peninsula is a part of the land nearly surrounded by water.

60. A cape is a point of land extending into the water.

A *promontory* is a mountainous cape.



BALBOA DISCOVERING THE PACIFIC OCEAN.

61. An isthmus is a narrow portion of land connecting two larger bodies of land.

III. RELIEF-FORMS.

62. The divisions of land by height, or relief, are *lowlands*, or plains and valleys; and *highlands*, or plateaus and mountains.

63. A **plain** is a great tract of low, and generally level, land.

64. A **valley** is the low land between hills or mountains, or a marked depression below the general level of a plain.

65. A **plateau** (high plain), or table-land, is a great tract of lofty, and generally level, land.

66. A **mountain** is a great mass of land rising above the surrounding country.

I. A **hill** is an elevation lower than a mountain. The name is generally applied to elevations less than 2,000 feet.

II. The **summit** of a mountain or hill is its highest point; the **base** is its foot.

67. A **mountain range**, or chain, is a connected series of mountains extending in the same general direction.

68. A **mountain system** consists of several ranges near together, and extending in the same general direction.

II.

DIVISIONS OF THE WATER.

I. CLASSIFICATION.

69. The waters on the surface of the earth are divided into the oceans, inland waters, and coast waters.

II. THE OCEANS.

70. The Ocean, or Great Sea, is the vast expanse of water surrounding the continents, and covering nearly three-fourths of the earth's surface.

71. An ocean is one of the grand divisions into which the Ocean is divided by the position and relations of the continents.

72. **Great Oceans.**—The Ocean forms three great basins, called the Atlantic Ocean, the Pacific Ocean, and the Indian Ocean.

To these, for convenience of geographical description, are added the names Arctic Ocean, which is around the North Pole, and Antarctic Ocean, which is around the South Pole.

The Arctic Ocean is the polar region of the Atlantic and Pacific oceans, rather than a separate ocean; the Antarctic Ocean is those parts of the Atlantic, Pacific, and Indian oceans, that are within the Antarctic Circle.

III. INLAND WATERS.

73. Inland waters, or those on the surface of the land, are lakes and rivers.

Most inland waters are drained—that is, flow—into the ocean or some of its divisions: hence they are sometimes called *drainage* waters.

74. A **lake** is an inland sheet of water.
Some salt lakes are called seas.

75. A **river** is a large stream of fresh water.

A **tributary** is a river flowing into another river.

The **confluence** of two rivers is their point of meeting.

An **estuary** is a broad mouth of a river.

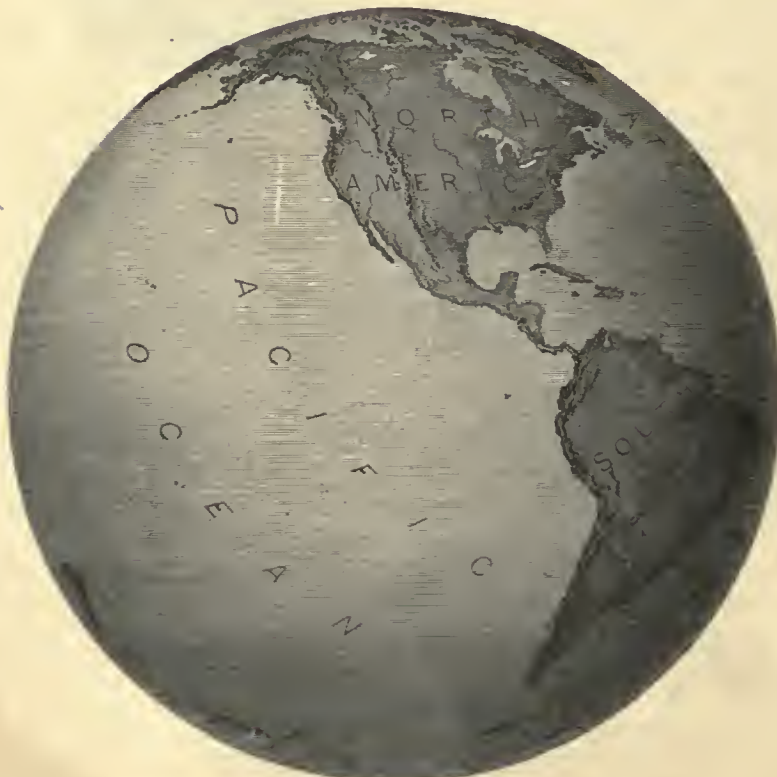
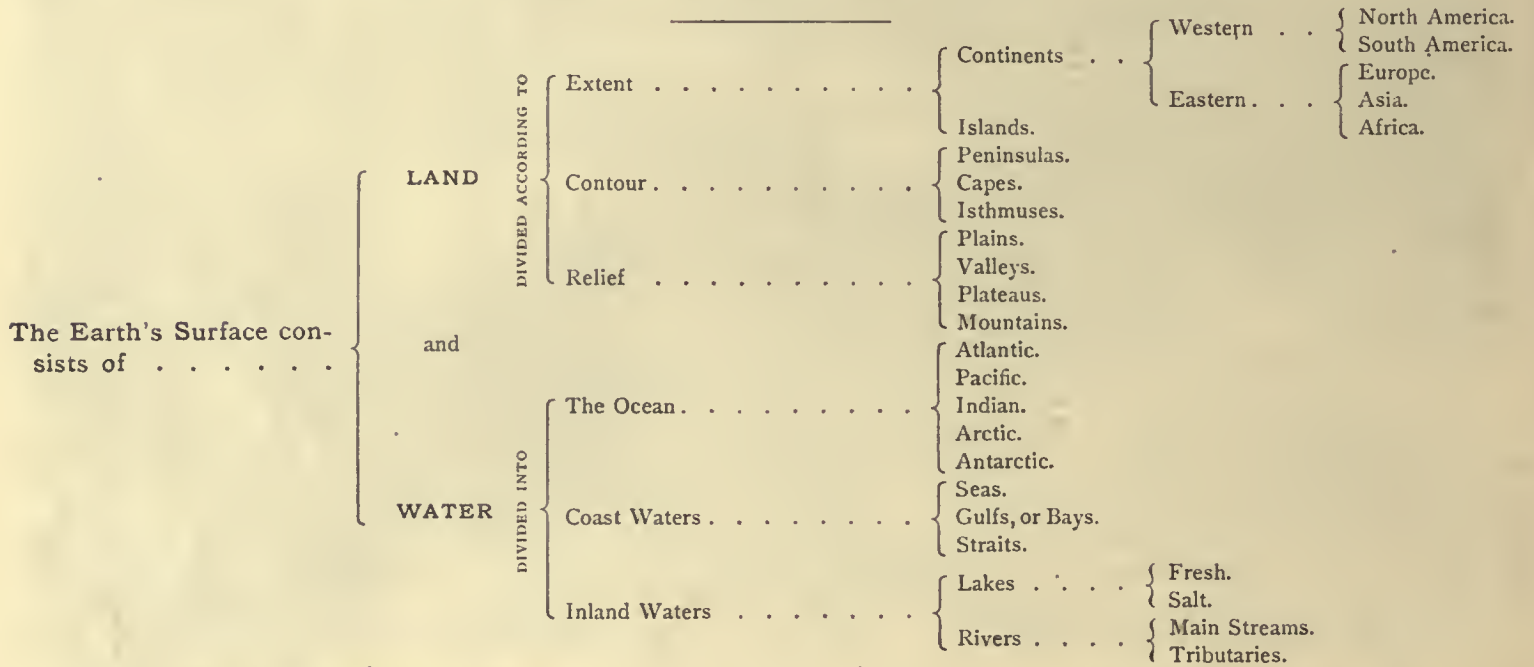
76. A **river system** is a river with its tributaries.
 77. A **river basin**, or valley, is the entire region drained by a river system.
 78. A **watershed** (literally *water-parting*) is the height of land that separates two river basins.
 This term is also applied to the slope down which a river or river system flows.

IV. COAST WATERS.

79. The coast waters are seas, gulfs or bays, and straits.

80. A **sea** is a large division of the Ocean nearly inclosed by land.
 81. A **gulf** or **bay** is a body of water extending into the land.
 A *harbor* is a small bay, in which ships may ride at anchor.
 82. A **strait** is a narrow passage of water connecting two larger bodies of water.
 A *channel* is a wide strait. A *sound* is a shallow strait, or channel.
 83. An **ocean-current** is a broad stream of water flowing through the Ocean.

TOPICAL SYNOPSIS FOR REVIEW.



WESTERN HEMISPHERE.



EASTERN HEMISPHERE.

III.

CLIMATE.

84. **Climate** is the condition of the atmosphere in regard to heat and moisture in the different seasons.

85. **General Law.**—The heat is greatest near the Equator and diminishes gradually toward the Poles; in other words, the climate of a place depends in general on its latitude. But this general law is greatly modified by other conditions.

86. **First Modification.**—The altitude of a place affects its temperature. High mountains and plateaus, even in the Torrid Zone, have a cool or cold climate.

The lower and denser strata of the atmosphere absorb the greatest amount of the sun's heat, and are therefore the warmest. For every one hundred yards of perpendicular ascent there is a decrease of one degree in the temperature: hence, even at the Equator, by ascending to the height of about 16,000 feet above the level of the sea, we reach the snow-line, where winter is perpetual.

87. **Second Modification.**—The prevailing winds at a given place modify the climate of the place. Currents of air flowing from the equatorial region are hot; currents of air flowing from the polar regions are cold. Hence, if we suppose that, of two places in the Northern Hemisphere and in the same latitude, the one is exposed to northerly winds and the other to southerly winds, the former will be cooler than the latter. In like manner, ocean-currents modify the climate (heat and moisture) of places.

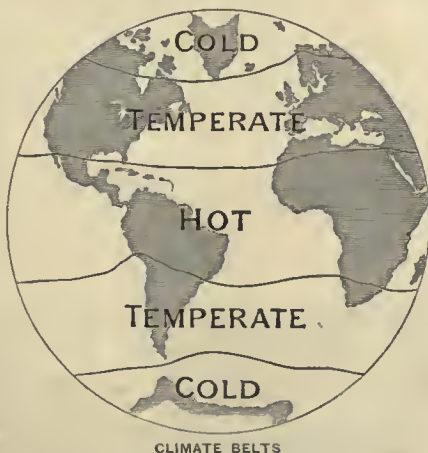
The British Isles, which have a mild, humid climate, are in nearly the same latitude as Labrador. The cause of the mild weather of the British Isles is a warm wind borne there from an ocean-current called the Gulf Stream.

88. **Third Modification.**—The climate of a place is greatly modified by its nearness to or remoteness from the ocean.

The heat absorbed into the land is not taken in to a great depth, and it is given off readily. The heat absorbed into the water is taken in to a great depth, and it is given off slowly. The ocean is thus a great storehouse of heat. In summer the air over the ocean is cooler than that over the land, because the ocean radiates its heat more slowly than the land. In winter the air over the ocean is warmer than that over the land, because the land has then lost its heat by rapid radiation, while the ocean has preserved its heat.

89. **Fourth Modification.**—The climate of a place is modified by the length of the day.

More heat is communicated in a long day than is carried off in the succeeding short night; so that heat continues to accumulate during the summer season. In the polar regions, notwithstanding the obliquity of the sun's rays, the heat during the short summer is very considerable, for the reason that, the day being continuous for weeks or months, the heat accumulates. This accumulation accounts for the fact that the summer heat in New York, Chicago, and St. Louis is often more intense than in New Orleans or Havana, — places near the Equator, but with shorter days.



NOTE. — The zones on maps and globes indicate the climate of places only in a very general way. The actual belts of climate are more correctly shown in the preceding diagram. The lines crossing the map indicate that the places crossed by each line have the same average amount of heat in the course of a year. They are called *isothermal lines*, or *isotherms* (from two Greek words signifying *equal heat*). If the degree of heat at any given place depended simply on the latitude of the place, the Tropics and Polar Circles would correctly mark the boundaries of climate; but, since it depends on other conditions as well, the lines marking the actual belts of climate vary in direction.

IV.

PLANTS AND ANIMALS.

90. **Vegetation** signifies plant-life in its manifold forms.

The term *flora* is often employed to designate the plant-life of a region; thus we speak of the *flora* of the United States, of Australia, &c., meaning all the species of plants in these regions.

91. **Conditions of Plant-Life.**—Plants depend for their continuance on certain physical conditions. The conditions that regulate plant-life are heat (with light) and moisture. A little more heat or a little more cold, a little more moisture or a little more drought, and the plant flourishes or decays.

92. **Distribution.**—The yearly supply of heat and moisture is greatest in the equatorial region: hence vegetation is most luxuriant within the Tropics, and diminishes as we proceed toward either Pole.

93. **Belts.**—Different regions of the earth present different conditions of climate; climate controls plants: hence different regions have each their own distinct vegetation. There are four well-marked belts of plant-life, — the Tropical, Warm-Temperate, Cold-Temperate, and Polar belts.

94. The **Tropical belt** corresponds nearly with the Torrid Zone as marked on maps and globes. It includes all countries where frost is never in the ground.

Characteristic plants of this belt are palms, bananas, bread-fruit, pine-apples, rice, coffee, the sugar-cane, spices, opium (from the poppy), indigo, and caoutchouc. The equatorial parts of this belt are further marked by canes, bamboos, large and showy flowers, and gigantic parasitic plants.

95. The **Polar belt** includes all countries where frost is never out of the ground. Geographically it comprises the Frigid zones and parts of the North Temperate Zone.

This belt is marked by the dwarf birch, alder, and willow. Its more temperate parts yield barley, turnips, and Iceland moss; but its higher latitudes produce no food-plants, nor indeed any kind of vegetation except mosses, lichens, &c.

96. **Temperate Belts.**—The region between these two extremes is divided, in both the northern and the southern hemisphere, into two belts, — the Warm-Temperate, which adjoins the Tropical, and the Cold-Temperate, which adjoins the Polar belt.

In a general way, it may be said that the highest latitudes in which Indian-corn can be grown mark the dividing-line between these two belts. The warm-temperate belt is the land of the vine and olive, the laurel and myrtle. It has numerous kinds of deciduous forest-trees (those which shed their leaves in autumn), as the oak, chestnut, ash, maple, cottonwood, &c. As products of cultivation, tea, cotton, and tobacco may be noted. The chief food-plants are corn, wheat, rice, and potatoes. The line of the cultivation of wheat includes the warmer parts of the cold-temperate belt; but its characteristic food-plants are barley, rye, oats, buckwheat, and potatoes. Flax and hemp are grown. Among representative forest-trees are the pine, maple, beech, birch, spruce, and larch.



ZONES OF PLANT LIFE.



ZONES OF ANIMAL LIFE.

97. **Effect of Altitude.** — Temperature decreases as we ascend from the level of the sea into the higher regions of the atmosphere: hence at the Equator the traveler who ascends a lofty mountain passes through belts of vegetation similar to those that mark the earth's surface from the Equator to the Poles.

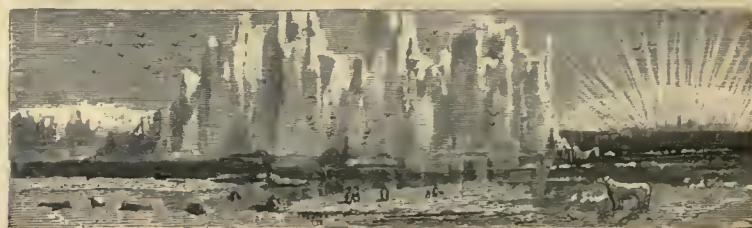
"Nature has permitted the native of the Torrid Zone to behold all the vegetable forms of the earth without quitting his own clime." — *Humboldt.*

98. **Animal Life.** — Animals, like plants, are influenced by physical conditions, and especially by climate and food. The animals of the Torrid Zone excel those of the Temperate Zones in number, size, strength, and beauty; while those of the Temperate Zones surpass the animals of the polar regions. There are three principal belts of animal life.

- I. The Tropical belt is the home of such animals as the lion, tiger, and panther; apes, monkeys, and gorillas; the giraffe and zebra; the elephant, rhinoceros, and hippopotamus; the crocodile and boa; the flamingo, peacock, parrot, and bird-of-paradise.
- II. The Temperate belts are the home of the following, among other animals: (1) DOMESTIC ANIMALS, as the horse, camel, llama, ox, sheep, goat, hog, dog; the hen, turkey, goose, &c.; (2) WILD ANIMALS, as the bear, buffalo, deer, kangaroo, wolf, fox, beaver; the eagle, hawk, jay, &c.
- III. The Polar belt numbers among its leading animals the white polar bear, the walrus, seal, reindeer, dog, arctic fox, sable, ermine, marten, auk.



TROPICAL SCENE.



POLAR SCENE.

V.

RACES OF MEN.

99. The population of the globe is about 1,435,000,000.

100. **Races.** — The inhabitants of the earth are divided into five great races, — the Caucasian, or white race; the Mongol, or yellow race; the Ethiopian, or black race; the Malay, or brown race; and the American Indian, or red race.

REFERENCE TABLE OF RACES.

RACE.	PHYSICAL CHARACTERISTICS.	REPRESENTATIVE TYPES.	NUMBERS.
Caucasian .	COLOR: white to swarthy. FEATURES: regular. HAIR: waving or curling. BEARD: heavy.	Leading European peoples, descendants of European colonists, Hindoos, Arabs.	600 millions.
Mongol . . .	COLOR: olive-yellow. FEATURES: face broad and flat, with high cheek-bones, and small, black, obliquely set eyes. HAIR: coarse and stiff. BEARD: scanty.	Chinese, Japanese, Tartars, Turks, Esquimaux.	550 millions.
Ethiopian .	COLOR: brown to black. FEATURES: flat nose, retreating forehead, prominent jaws. HAIR: short and crisp. BEARD: scanty.	Tribes of Central Africa, their descendants in America.	180 millions.
Malay . . .	COLOR: brown. FEATURES: much like Mongolians, but with horizontally set eyes. BEARD: full.	Inhabitants of Malacca, of East India Islands, and most of the Isles of the Pacific.	60 millions.
Indian . . .	COLOR: red, or copper hue. FEATURES: high cheek-bones, prominent nose, and black eyes. HAIR: straight and black. BEARD, scanty.	Indian tribes in North and South America.	10 millions.

DEFINITIONS IN POLITICAL GEOGRAPHY.

I.

STATES OF SOCIETY.

101. A **state of society** is the condition of a people in respect to civilization. The principal states are the savage, barbarous, semi-civilized, and civilized.

102. The **savage** state is that of people who live in tribes, and subsist on the products of nature.

103. The **barbarous** state is that of a people who possess flocks and herds, and rudely till the soil.

104. The **semi-civilized** state is that of a people who have a settled society, live in towns, possess a written language, and have made considerable progress in the mechanic arts.

105. The **civilized**, or enlightened, state is the condition of the most advanced nations,—of those that have made the greatest progress in the arts, sciences, morals, and culture.

II.

GOVERNMENT.

106. The principal forms of government are the republican and the monarchical.

107. A **republic** is a country governed by men chosen by the people to make and execute the laws.

108. A **monarchy** is a government in which the chief authority is in the hands of a sovereign, called king (queen) or emperor.

A limited, or constitutional, monarchy is a government in which the power of the sovereign is limited by law, and the laws are made by representatives of the people.

An absolute monarchy, autocracy, or despotism is a government in which the sovereign has unlimited power to *make* as well as to *execute* the laws.

A **kingdom** is a monarchy governed by a king or queen.

An **empire** is an extensive monarchy.

109. A **state**, in our country, is an independent member of the Federal Union. The people elect a state government and a legislature, to make state laws.

110. A **territory**, in our country, is a region not organized as a state, yet having a territorial government.

111. A **county** is a subdivision of a state, having its own local officers. The place where the county officers transact business is called the county-seat, or shire-town.

112. The **metropolis** of a state or country is its chief city.

113. The **capital** of a country is the seat of government.

ETYMOLOGY OF TERMS USED IN GEOGRAPHY.

altitude. Lat. *altitudo*, height, from *altus*, high.

annual. Lat. *annualis*, yearly, from *annus*, year.

antarctic. Gr. *anti*, opposite, and *arktos*, bear. See *arctic*.

archipelago. Gr. *archi*, chief, and *pelagos*, sea; originally applied to the Ægean Sea, which is studded with numerous islands.

arctic. Gr. *arktikos*, from *arktos*, bear, and a northern constellation so called.

Atlantic. Lat. *Atlantici*; from "Atlas," a fabled Titan who was condemned to bear heaven on his head and hands.

axis. Lat. *axis*, an axletree.

barbarous. Gr. *barbaros*, foreign.

bay. Fr. *baie*, from Lat. *baia*, an inlet.

cancer. Lat. *cancer*, a crab (one of the signs of the zodiac).

cape. Fr. *cap*, from Lat. *caput*, head.

capital. Lat. *capitalis*, from *caput*, head.

capricorn. Lat. *caper*, goat, and *cornu*, horn (one of the signs of the zodiac).

cardinal, adj. Lat. *cardinalis*, from *cardo*, *cardinis*, a hinge.

channel. Lat. *canalis*, from *canna*, a reed, or pipe.

circle. Lat. *circus*, from Gr. *kirkos*, a ring.

circumference. Lat. *circum*, around, and *ferre*, to bear.

city. Fr. *cité*, from Lat. *civitas*, a state or community.

civilized. Lat. *civilis*, pertaining to an organized community.

climate. Gr. *klima*, *klimatos*, slope, the supposed slope of the earth from the equator to the poles.

coast. Old Fr. *coste* (New Fr. *côte*), from Lat. *costa*, rib, side.

confluence. Lat. *con*, together, and *fluere*, to flow.

continent. Lat. *con*, together, and *tenere*, to hold.

contour. Lat. *con*, together, and *tornus*, a lathe.

county. Fr. *comté*, from Lat. *comitatus*, governed by a count.

degree. Lat. *de*, and *gradus*, a step.

diameter. Gr. *dia*, through, and *metron*, measure.

diurnal. Lat. *diurnalis*, daily, from *dies*, day.

equator. Lat. *equus*, equal.

estuary. Lat. *æstuaræ*, to boil up, or be furious; the reference being to the commotion made by the meeting of a river-current and the tide.

frigid. Lat. *frigidus*, from *frigere*, to be cold.

geography. Gr. *ge*, the earth, and *graphê*, a description.

globe. Lat. *globus*, a round body.

gulf. Fr. *golfe*, from Gr. *kolpos*, bosom, bay.

harbor. Anglo-Saxon, *hereberga*, from *beorgan*, to shelter.

hemisphere. Gr. *hemi*, half, and *sphaira*, sphere.

horizon. Gr. *horizein*, to bound.

Indian (ocean). India.

isthmus. Gr. *isthmos*, a neck.

lake. Lat. *lacus*, a lake.

latitude. Lat. *latitudo*, from *latus*, broad.

longitude. Lat. *longitudo*, from *longus*, long.

meridian. Lat. *meridies*, noon, from *medius*, middle, and *dies*, day.

metropolis. Gr. *meter*, mother, and *polis*, city.

monarchy. Gr. *monarchês*, from *monos*, alone, and *archein*, to rule.

mountain. Fr. *montagne*, from Lat., *mons*, *montis*, a mountain.

oblate. Lat. *oblatus* (*ob* and past part. of *ferre*, to bring), brought forward.

ocean. Gr. *okeanus*, from *okus*, rapid, and *naein*, to flow.

orbit. Lat. *orbita*, track, from *orbis*, circle.

Pacific. Lat. *pacificus*, from *pax*, *pacis*, peace, and *facere*, to make.

parallel. Gr. *para*, beside, and *allelon*, of one another.

peninsula. Lat. *pæne*, almost, and *insula*, island.

physical. Gr. *physis* (*phusis*), nature.

plain. Lat. *planus*, flat.

plateau. Fr. *plateau*, table-land, from *plat*, flat.

plane. Lat. *planus*, flat.

pole. Gr. *polos*, a pivot.

political. Gr. *polis*, a city or state.

promontory. Lat. *pro*, before, and *mons*, *montis*, a mountain.

radius. Lat. *radius*, a spoke.

relief. Fr. *relever*, from Lat. *relevare*, to raise.

republic. Lat. *res*, an affair, and *publica*, public; that is, a *commonwealth*.

river. Fr. *rivière*, from Lat. *ripa*, a shore or bank.

savage. Fr. *sauvage*, from Lat. *silva*, a wood.

sea. Anglo-Saxon, *se*, the sea.

society. Lat. *societas*, from *socius*, a companion.

strait. Old Fr. *stroit*, narrow.

temperate. Lat. *temperatus*, moderate, from *temperare*, to moderate.

torrid. Lat. *torridus*, parched, from *torrere*, to parch.

tributary. Lat. *tributarius*, contributing.

tropic. Gr. *tropikos*, turning, from *trepein*, to turn.

zone. Gr. *zone*, a belt, a girdle.

THE WORLD IN HEMISPHERES.



STUDIES ON THE HEMISPHERE MAP.

I. GRAND DIVISIONS.

What two grand divisions are in the Western Hemisphere? What three in the Eastern? Which division of America is crossed by the Equator? By the Tropic of Capricorn? In what zone is most of North America? Most of South America? What isthmus joins North and South America? By what oceans are the two Americas surrounded? What is the direction of Europe from Asia? Of Africa from Asia? What grand divisions are wholly in the Northern Hemisphere? In what three zones is Asia? In which zone is most of Europe? What oceans surround the Eastern Continent?

II. ISLANDS.

What island off the east coast of North America? What group south? What large island in Oceania is crossed by the 40th parallel? What islands south of Behring Sea? Off the

west coast of Europe? Off the east coast of Asia? Locate Newfoundland, Iceland, Madagascar, Borneo.

III. CAPES.

What cape at the southern extremity of Greenland? At the eastern point of South America? At the southern point of Africa? Locate the following capes, — Hatteras, Frio, San Lucas, North Cape, Verde.

IV. COAST WATERS.

What great inbreaking of the Atlantic Ocean in the northern part of North America? In the southern part of the United States? Locate the following, — Hudson Bay, Caribbean Sea, Behring Sea. Where is the North Sea? Where is the Mediterranean Sea? What large gulf west of Africa? What sea between Arabia and Hindostan? Where is the Bay of Bengal? Locate the Red Sea, China Sea, Japan Sea.

V. MOUNTAINS.

What great mountain system in North America? In South America? In which grand division are the Altai Mts.? What mountains in Africa? Where are the Himalaya Mountains?

VI. RIVERS AND LAKES.

What river flows into the Gulf of Mexico? Where is Lake Superior? What South American river has its mouth near the Equator? Where is the Orinoco? Name two great European rivers. Four African. Where is Lake Albert? Victoria? What great rivers of Asia flow northward? Southward?

VII. LATITUDE AND LONGITUDE.

Vessels were spoken in the following latitudes and longitudes: in what waters were they? Lat. 40° N., long. 60° W. Lat. 20° N., long. 120° W. Lat. 40° S., long. 140° E. Lat. 60° S., long. 80° W. Lat. 40° S., long. 180° W.

COMPARATIVE GEOGRAPHY OF THE WORLD.



PHYSICAL VIEW OF LAND AND WATER.

I. THE HEMISPHERES.

1. What is the comparative area of the land and water surfaces of the earth?

About one-fourth of the earth's surface is land, the remaining three-fourths are water.

2. What are the proportions of land and water in the hemispheres into which the earth may be divided?

The Eastern Hemisphere contains about two and a half times as much land as the Western; and the Northern Hemisphere, about three times as much as the Southern.

II. THE CONTINENTS.

3. How many continents are there?

There are two continents, — the Eastern Continent in the Eastern Hemisphere, and the Western Continent in the Western Hemisphere.

4. What similarity is there between South America and Africa with respect to their relation to the main body of the continent?

South America is nearly detached from North America, and is connected with it by the Isthmus of Panama; Africa is nearly detached from the continental mass, and is connected with it by the Isthmus of Suez.

5. What difference is there between the Eastern and the Western Continent with respect to their greatest length?

The greatest length of the Eastern Continent is from east to west, or in the direction of the parallels; the greatest length of the Western Continent is from north to south, or in the direction of the meridians.

6. What difference is there between the Eastern and the Western Continent with respect to physical features?

The Eastern Continent is remarkable for mountains and plateaus; the Western Continent, for rivers and plains.

III. GRAND DIVISIONS OF LAND.

7. Name the five grand divisions of land.

The five grand divisions of land are North and South America, in the Western Continent; and Europe, Asia, and Africa, in the Eastern Continent.

8. Name the grand divisions in the order of size.

The grand divisions in the order of size are Asia, Africa, North America, South America, and Europe.

9. What are the comparative sizes of the grand divisions?

South America would make two divisions as large as Europe; North America, two and a half divisions; Africa, a little more than three; and Asia, four and a half.

10. Which grand divisions of land are wholly in the Northern Hemisphere?

North America, Europe, and Asia are wholly in the Northern Hemisphere.

11. Which grand divisions are partly in the Southern Hemisphere?

South America and Africa are partly in the Southern Hemisphere.

12. What contrast do the northern and southern grand divisions present with respect to their coast-lines?

The coast-lines of the three northern grand divisions are broken by many seas, gulfs, and bays; but the two southern grand divisions have few great inlets of the ocean.

IV. GRAND DIVISIONS OF WATER.

13. How many oceans are there, and how are they classed?

There are five oceans, classed as three primary oceans, — the Pacific, Atlantic, and Indian oceans; and two secondary oceans, — the Arctic and Antarctic oceans.

14. How is the Pacific Ocean bounded?

The Pacific Ocean is bounded by America on the east, Asia and Australia on the west, and the Polar circles on the north and south.

15. How is the Atlantic Ocean bounded?

The Atlantic Ocean is bounded by Europe and Africa on the east, America on the west, and the Polar circles on the north and south.

16. How is the Indian Ocean bounded?

The Indian Ocean is bounded by Southern Asia on the north, Australia on the east, the Antarctic circle on the south, and Africa on the west.

17. Where is the Arctic Ocean?

The Arctic Ocean extends around the North Pole, and is bounded by the northern shores of the Eastern and Western continents, and by the Arctic circle.

18. Where is the Antarctic Ocean?

The Antarctic Ocean extends around the South Pole, and is bounded by the Antarctic circle.



MERCATOR'S MAP.



NORTH AMERICA

PHYSICAL MAP

SCALE OF MILES.

Lowlands, Green. Highlands, Buff

Local Time A. M. when Noon on the Meridian of Washington. 9 10 11 12.30

PHYSICAL NORTH AMERICA.



PHYSICAL VIEW OF NORTH AMERICA.

QUESTIONS ON THE PHYSICAL MAP.

- I. What geographical circles cross North America? In which zone is the greater part of this grand division? In which zone is the northern part? The southern part? What isthmus connects North America with South America? Through how many degrees of latitude (approximate estimate) does North America extend? Through how many degrees of longitude? What is the time at Cape Cod when it is noon at Washington? What is the time at San Francisco when it is noon at Washington? What is the length of the longest day on the latitude of Newfoundland and Vancouver Island? On the Arctic Circle? Where is the day six months long? *Ans.* At the North Pole. By what oceans is North America surrounded? What is the general direction of the Atlantic coast? Of the Pacific coast?
11. Name the two seas near the coast. Name all the gulfs on the coast. The bays. The straits. Name all the bodies of water in their order from Baffin Bay to the Isthmus of Panama. From the Isthmus of Panama to Behring Strait. From Behring Strait to Baffin Bay. Name all the peninsulas from Labrador to Yucatan. From Yucatan to Alaska. Name all the capes from Cape Farewell to Point Moriato. From Point Moriato to Cape Prince of Wales. Name all the islands and groups of islands near the coast of North America.

111. What two great highlands in North America? Which is the more extensive? What is its general direction? What mountain-ranges are near the Pacific coast? What mountain-system occupies the central part of the Pacific Highland? What region east of the Rocky Mountains? What two plateaus and what basin in the Pacific Highland? What is the eastern highland called? What mountain-system does it contain? In what direction does it extend? What highland region in the extreme northern part of North America?
- IV. What plain between the great highlands? What gulf south of it? What ocean north? What is the northern part of the Central Plain called? The southern part? What plain is east of the Appalachian Mountains? Name the principal rivers which drain the Arctic Plain. What lakes discharge their waters through these rivers? Name the principal rivers which drain the Pacific Highland. What great river drains the southern part of the Central Plain? Name its four principal tributaries. Name the "Great Lakes"? What river drains them?
- V. What parallel and what circle are crossed by the line showing the northern limit of the growth of trees? On which coast does it extend the farther north? Where is the line marking the northern limit of the growth of wheat? Point out two extensive forest regions. In what parts of North America is gold found? Silver? Copper? Lead? Iron? Coal?
- VI. What ocean-currents flow along the western coast of North America? What is the principal current of the Atlantic Ocean named? What current off the north-eastern coast?

DESCRIPTION.

[Area, 9,348,000 square miles. Population, 71,900,000.]

I. SITUATION, EXTENT, AND OUTLINE.

1. **Situation and Extent.**—North America is the northern grand division of the Western Continent. It extends from the Arctic Ocean almost to the Equator (nearly 5,000 miles), and from the Atlantic to the Pacific Ocean. It is more than twice as large as Europe, but less than half as large as Asia.

2. **Outline.**—This grand division is broadest in the northern part; but it becomes narrower toward the south, and terminates in the Isthmus of Panama. Its outline is irregular, the coast being indented by numerous seas, gulfs, and bays.

II. SURFACE.

3. **Natural Divisions.**—The surface of North America is naturally divided into four parts: the Pacific Highland, the Atlantic Highland, the Atlantic Plain, and the Central Plain.

4. **The Pacific Highland** occupies almost all the western half of North America, and extends from the Arctic Ocean to the Isthmus of Panama. It is divided by the Rocky Mountains into two nearly equal parts.

1. The Rocky Mountains form the backbone of North America. The massive chains of this system rise from a plateau which gradually ascends from the Arctic Ocean, where it is quite low, to about 8,000 feet in Mexico.

11. The Sierra Nevada, Cascade, and Coast Mountains form the western border of the Pacific Highland. The loftiest peak in North America is St. Elias (19,283 feet high), in the northern Coast Mountains.

5. The Atlantic Highland extends from the northern coast of Labrador nearly to the Gulf of Mexico. Its mountains are the ranges of the Appalachian system.

The Atlantic Highland consists of the plateau of Labrador with the Laurentide Mountains, on the north of the St. Lawrence, and the Appalachian mountain-system, on the south. The Appalachian Mountains, consisting of low parallel ranges, are only about one-fourth the length of the Rocky Mountains, and in structure are far less massive than that system. The highest peaks reach an elevation of less than 8,000 feet.

6. The Atlantic Plain is the slope and tide-water region between the Appalachian Mountains and the Atlantic Ocean.

7. The Central Plain is between the two highland regions, and extends from the Arctic Ocean to the Gulf of Mexico.

1. The Central Plain is formed by the long gentle slope descending eastward from the Rocky Mountains, and the western slope of the Atlantic Highland.

11. The Central Plain consists of two opposite slopes divided from each other by a slight elevation near the center, called the Height of Land. The northern slope is called the Arctic Plain; the southern slope is the Mississippi Valley.

III. CLIMATE.

8. Cold Zone. — The northern third of North America has a very cold climate; and even that part of the Arctic Plain which lies in the North Temperate Zone has a semi-arctic climate.

The Central Plain is exposed to the cold winds from the Arctic Ocean, while most of it is cut off by the coast mountain-ranges from the equalizing influences of the Atlantic and Pacific oceans: but the western coast from Alaska to the Columbia River, being open to the effect of the warm ocean-currents and counter trade-winds of the Pacific, has a much milder climate than the rest of North America in the same latitude.

9. Hot Zone. — The West Indies, Central America, and the lowlands of Mexico have a tropical, or constantly warm, climate.

10. The temperate region includes the United States, the basin of the St. Lawrence and Great Lakes, and the plateau of Mexico. Owing to latitude and local causes, there are, however, important differences of climate in this extensive region.



PLANTS OF NORTH AMERICA.

IV. VEGETATION AND ANIMALS.

11. Vegetation. — North America is especially distinguished, in the temperate region for the great variety of its forest trees, and in the warm region for the number of its large flowering trees, such as the tulip-tree, the magnolias, the catalpas, and the locusts. The plateaus of the warm region are rich in plants of the cactus family, the yucca, and the agave or American aloe. The low coast plains of Mexico



and Central America and the West Indies have the luxuriant vegetation of the tropics, — palms, bananas, sugar-cane, etc.

Most of the cereals, as wheat, oats, barley, and rye, are not indigenous to the New World, but were introduced from Europe. The most characteristic native cereal of North America is maize, or Indian corn, which is extensively cultivated from Central America and the West Indies to high latitudes in this grand division.

12. Animals. — The following animals are peculiar to North America: the puma, or panther, the most powerful animal of the cat tribe belonging to this continent, and which replaces the lion and tiger of Asia; the grizzly bear, the largest and most ferocious of its kind, found in the Rocky and Sierra Nevada Mountains; the musk-ox, of the Arctic regions; the bison, roaming over "The Plains" in immense herds; the raccoon, turkey, passage-pigeon, and rattlesnake. Among other wild animals are the polar bear, the wolf, the fox, the otter, the deer, the elk, and the beaver. These North America has in common with the Eastern Continent.

V. MINERALS.

13. North America in the eastern half is exceedingly rich in the useful minerals, coal, iron, copper, and lead.

The coal-fields of North America are more extensive than those of all other countries taken together.

In the western half the precious metals abound, — gold, especially in the Sierra Nevada Mountains, silver in the plateau region of the United States and Mexico, and both gold and silver in the Rocky Mountains.

VI. INHABITANTS.

14. The number of inhabitants of North America is about 72,000,000, or one-fifth of the population of Europe. Four of the five races of men are represented: the Indians, the aborigines, who formerly occupied the whole of the continent, but who are now confined to the western and northern parts; the Esquimaux, a Mongol race dwelling in the northern parts, together with the Chinese of the Pacific coast and the West Indies; the whites, or Caucasians, descendants of colonists from the various countries of Europe; and the negroes, of the Ethiopian race, the descendants of slaves introduced into Spanish North America and the United States.

The Caucasians are the most numerous, numbering more than 56,000,000. The negroes number about 10,000,000; the Indians about 5,000,000.

VII. NATURAL ADVANTAGES.

15. Among the natural advantages of North America are: (1) it lies mainly in the Temperate Zone; (2) it has not, like other grand divisions, impassable mountain barriers or deserts; (3) it possesses a vast area of fertile soil, and is rich in the most valuable metals and minerals; (4) it has numerous navigable rivers and lakes, and fine harbors, which afford excellent facilities for commerce.

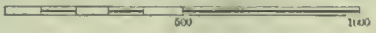




NORTH AMERICA

POLITICAL MAP

SCALE OF MILES.





QUESTIONS ON THE POLITICAL MAP.

I.

General.—What two countries occupy the greater part of North America? What political division is north-east of the Dominion of Canada? North-west? What country is south-west of the United States? South-east of Mexico? What division is south-east of the United States?

Danish America.—What two islands constitute Danish America? What is the capital of Iceland? What is the most northern town in N. A.?

Dominion of Canada.—Bound the Dominion of Canada. What is the capital? Name two cities on the St. Lawrence River. What island east of the Gulf of St. Lawrence? Does it belong to the Dominion of Canada?
Ans. No: it is a separate British province. What is its capital?

United States.—Bound the United States. What is the capital? Name four Atlantic seaports. What city near the mouth of the Mississippi? On the Pacific coast? On Lake Michigan? Near the mouth of the Missouri?

Mexico.—Bound Mexico. What is its capital? Its chief seaports?

Central America and West Indies.—Bound Central America. What city in the north-west? Name the four largest islands of the West Indies. Name a city in each.

II.

Islands.—In what direction is it from the nearest land? By what waters surrounded?

Greenland? Iceland? Newfoundland? Cape Breton? Bermuda Isles?

West Indies? Cuba? Hayti? Jamaica? Porto Rico? Bahama Isles? Vancouver? Queen Charlotte? Sitka?

Peninsulas.—From what part of North America does it project? Into what water, or between what waters?

Labrador? Nova Scotia? Florida? Yucatan? Lower California?

Capes.—Where is it? Into what water does it project?

Point Barrow? Cape Farewell? Race? Sable (N.)? Sable (S.)? Hatteras? Cape San Lucas? Mendocino? Flattery? Prince of Wales?

Mountains.—In what part of North America is it? In what direction does it extend?

Rocky? Sierra Nevada? Cascade? Coast? Sierra Madre? Appalachian?

Sea, Gulfs, and Bays.—Where is it? Of what body of water is it an arm?

Baffin? Hudson? James? St. Lawrence? Delaware? Chesapeake? Mexico? Caribbean? California? Behring?

Straits.—Between what lands? What waters does it connect?

Davis? Hudson? Belle Isle? Florida? Behring?

Lakes.—Where is it? What is its outlet?

Great Bear? Great Slave? Athabasca? Winnipeg? Superior? Michigan? Huron? Erie? Ontario? Great Salt? Nicaragua?

Rivers.—Where does it rise? In what direction, and into what, does it flow?

St. Lawrence? Hudson? Mississippi? Missouri? Ohio? Rio Grande? Colorado (1)? Colorado (2)? Columbia? Yukon? Mackenzie? Saskatchewan? Arkansas?

DESCRIPTION.

POLITICAL DIVISIONS.

North America comprises six political divisions: *Danish America*, the *Dominion of Canada* and *Newfoundland*, the *United States*, *Mexico*, *Central America*, and the *West Indies*.

DANISH AMERICA.

1. Danish America includes Greenland and Iceland. They belong to the kingdom of Denmark.

2. Greenland.—The population (about 10,000) consists of Esquimaux and a few Danes and Norwegians who have small trading and shipping settlements at New Herrnhut, Uper-

navik, and other points. The chief exports are eider-down, whale and seal oil, and furs.

Greenland is a very large island, or perhaps a cluster of islands, joined by ice. The interior has never been explored. The mountain valleys are filled with glaciers, which, moving slowly to the sea, become undermined on reaching the ocean, and immense fragments are broken off, forming the floating mountains of ice called *icebergs*.

3. Iceland.—The inhabitants of Iceland are mostly of Norwegian descent. The small but intelligent population of the island (72,500) is engaged in farming, fishing, and sheep-raising. Reykjavik is the capital.

drained by Mackenzie River? What large river in the southern part? What territories of the United States are south of the North-west Territory?

KEEWATIN.

What great bay east of Keewatin? What large lake in this district? What river flows into Winnipeg Lake from the south? From the west? By what is Lake Winnipeg drained?

NORTH-EAST TERRITORY.

What great bay north and west of this territory? What is the southern part of it called? Name the principal rivers flowing into James Bay. What waters does Hudson Strait connect?

MANITOBA.

Bound Manitoba. What rivers and lakes are partly in this province? What state and what territory south? What is the capital?

ONTARIO.

What river forms the boundary between the provinces of

Ontario and Quebec? On which four of the Great Lakes does the former front? What river connects Lakes Erie and Ontario? Locate Toronto, the largest city and capital. Where is Hamilton? Kingston? London?

QUEBEC.

What states and what provinces to the south-east? In the valley of what river is the Province of Quebec situated? Is the greater part of this province north, or south, of the St. Lawrence? What three tributaries of the St. Lawrence in this province? What river drains Lake Champlain into the St. Lawrence? Where is Montreal? Quebec? Which city is the farther south, — Montreal, or Quebec? Which is the capital? In what direction is Quebec from Boston? Montreal from New York? Where is Three Rivers? Sorel? Point Lévis?

NEW BRUNSWICK.

What gulf and bays form partial boundaries? What British province north? What state west? What river forms a par-

tial boundary between New Brunswick and Maine? Where is St. John? Fredericton?

PRINCE EDWARD ISLAND.

Where is the natural and political division of Prince Edward Island? Name the capital.

NOVA SCOTIA.

What two natural divisions of land form Nova Scotia? What bay separates it from New Brunswick? For what is the Bay of Fundy remarkable? *Ans.* The tide often rises more than seventy feet at the head of the bay. What strait between the mainland and Cape Breton Island? What is the capital?

NEWFOUNDLAND.

What waters surround Newfoundland? What strait separates it from Labrador? What cape in the south-east? What is the capital? What division of British America is under the same government as Newfoundland? *Ans.* Labrador.

DOMINION OF CANADA

DOMINION OF CANADA.

1. The Dominion of Canada occupies all the northern part of the American continent, except Alaska and a part of Labrador. Its area is nearly as great as that of the United States (3,205,000 square miles).

The Dominion of Canada consists of the provinces of Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Manitoba, and British Columbia, together with the North-east Territory, the District of Keewatin, and several other territorial districts.

2. Government. — "The Dominion" is a semi-independent federation of British provinces. The chief executive officer is the Governor-General, who is appointed by the sovereign of Great Britain. The legislature, called the Parliament, consists of the House of Commons, the members of which are elected by the people; and the Senate, whose members are appointed by the Governor-General.

Ottawa, in the Province of Ontario, is the capital of the Dominion.

While the Dominion government regulates all federal matters (as is the case with the general government in our own country), each province has its own local government, consisting of a legislature, elected by the people, and a lieutenant-governor, appointed by the Dominion government.

3. Commerce. — Canada carries on an extensive

CANADA, WITH NEWFOUNDLAND.

NEWFOUNDLAND.

1. Description. — The Island of Newfoundland forms a British province separate from the Dominion of Canada.

The government of Newfoundland includes also the coast of Labrador for 700 miles.

2. The fisheries form the sole wealth of the island. The cod-fisheries on the Banks of Newfoundland are the greatest and most important fisheries in the world. The whale, salmon, and herring fisheries of Labrador are also important.

The "Banks," as they are called, are elevated plateaus in this part of the ocean, rising far above the surrounding bottom of the sea. They form the favorite feeding-ground of the codfish. The *Grand Bank*, situated to the east and south of the island, extends about 300 miles in length, and 200 in breadth. The depth of water on the Banks varies from 150 to over 500 feet.

The cod are found in extraordinary abundance, and their annual capture in this locality for the last two hundred years does not appear to have diminished in any degree the vast multitude of their shoals. Thousands of vessels every year repair to the Banks for cod-fishing. From February to April their crews are employed from morning till night in boats containing from two to four men each.

3. St. Johns, the capital, is the chief commercial station in the island.



QUESTIONS ON THE MAP.

Mexico.—Bound Mexico. In what two zones is it? What bay east? What gulf in the north-west? What peninsula? What peninsula in the south-east? What mountain-chain traverses the country? Has Mexico any long rivers? What large river forms a partial boundary between Mexico and the United States? What river flows into the Gulf of California? What city is the capital? Name the seaports of the Gulf Coast. Of the Pacific Coast. Name three cities nearly in 21° north latitude.

Central America.—In what direction does Central America extend? With what country is it connected on the north-west? On the south-east? Name the divisions in their order from north to south. Which are on the Pacific Coast? On the Caribbean Sea? On both? In which republic is Lake Nicaragua? Where is the city of Guatemala? Of San Salvador? Of Managua? Where is Comayagua? Where is Balize? San José?

West Indies.—What three large West India Islands are in a line nearly east and west? What sea south of those islands? What island south of Cuba? Where is Kingston? In what direction are the Bahamas from Hayti? Where is Matanzas? Name the strait separating Florida from the West Indies. What island is so situated as to command the entrance of the Gulf of Mexico? Which of the groups of the West India Islands extends north of the Tropic of Cancer? In which group of islands is St. Thomas? In which group is Barbadoes?

MEXICO.

1. **Area.**—The area of Mexico (751,000 square miles) is nearly double that of all the Atlantic States.

2. **Surface.**—The Pacific Highland of North America reaches its greatest elevation in Mexico. Two mountain-ranges, situated near the opposite coasts, extend from north-west to south-east, and are the margins of a great mountain-plateau (from 4,000 to 8,000 feet in altitude), which forms the greater part of the country.

Between the mountains and the coast on each side is a belt of low-land, varying from a few miles to one hundred miles in width. The coast-belt is called the *tierra caliente*, or hot country; the table-land is called the *tierra templada*, or temperate country.

3. **Climate.**—Climate in Mexico depends very much upon the degree of elevation of the surface. The coast plains are hot, moist, and unhealthy; the table-land is a region of perpetual spring; the high mountains have a cold climate.

4. **Inhabitants.**—The inhabitants consist of Mexican Indians, who form the majority; of creoles, who are descendants of the early Spanish settlers; and of mixed races.

At the time of the discovery of America Mexico was inhabited by a superior race of Indians called Aztecs. They had fixed homes, good laws, large cities, and well-drilled armies. They were conquered by Cortez, who, with a small army of Spaniards, aided by a large army of Indians hostile to the Aztecs, captured the city of Mexico, the Aztec capital. Mexico became a republic, independent of Spain, in 1821. It at one time included California and Texas, now a part of our own country. Texas became independent of Mexico in 1836, and Mexico lost California in 1848. The population of Mexico is now about 10,000,000.

5. **Commerce.**—The foreign commerce is mostly with the United States and Great Britain. The principal exports are silver, lead, vanilla, sarsaparilla, coffee, cochineal, and mahogany.

6. **Government.**—Mexico is a federal republic, consisting of twenty-seven states, one territory, and one federal district.

7. **Cities.**—The City of México, the capital and metropolis, is a picturesque city, situated in a valley overlooked by lofty snow-covered mountains. Guadalajara, Guanajuato, and Puebla are important cities of the table-land. Vera Cruz and Acapulco are the chief seaports.

CENTRAL AMERICA.

REPUBLICS.	Area in Sq. Miles.	Population.	REPUBLICS.	Area in Sq. Miles.	Population.
Guatemala . . .	46,800	1,252,000	Nicaragua . . .	51,600	300,000
San Salvador . .	7,300	554,000	Costa Rica . . .	19,980	185,000
Honduras . . .	46,500	350,000	Balize (Colony) .	7,562	24,700

1. **Situation and States.**—Central America occupies a long isthmus between the Atlantic and Pacific oceans, and as a territorial division includes five independent republics: namely, Guatemala, San Salvador, Honduras, Nicaragua, and Costa Rica, together with Balize, a British dependency.

2. **Description.**—The surface, climate, productions, and population of Central America are similar to those of Mexico.

3. **Commerce.**—The small foreign commerce consists principally in the exportation of coffee, cochineal, mahogany, rose-wood, and dye-woods.

4. **Cities.**—The capitals of the republics, in the order given above, are, Guatemala, San Salvador, Tegucigalpa, Managua, and San José.

Balize.—Balize, or British Honduras, is attached to the government of Jamaica. The town of Balize is the principal place.

WEST INDIES.

DIVISIONS.	Area in Sq. Miles.	Population.	DIVISIONS.	Area in Sq. Miles.	Population.
Spanish Colonies .	49,500	2,180,000	Danish Colonies .	140	34,000
British Colonies .	13,300	1,245,000	REPUBLICS.		
French Colonies .	1,100	358,000	Hayti	9,250	550,000
Dutch Colonies .	430	43,000	San Domingo . .	20,600	300,000

1. **Situation.**—The West Indies form an archipelago which extends from Florida to South America.

The West Indies include not less than a thousand islands, varying greatly in size. The land surface of the archipelago is about twice that of New York State.

2. **Divisions.**—These islands are divided into the Greater Antilles, the Lesser Antilles, and the Bahamas.

3. **Climate.**—The climate of the West Indies is tropical; but the influence of the surrounding seas and of the trade-winds moderates the intense heat of the Torrid Zone. The only change of seasons is that from dry to rainy weather.

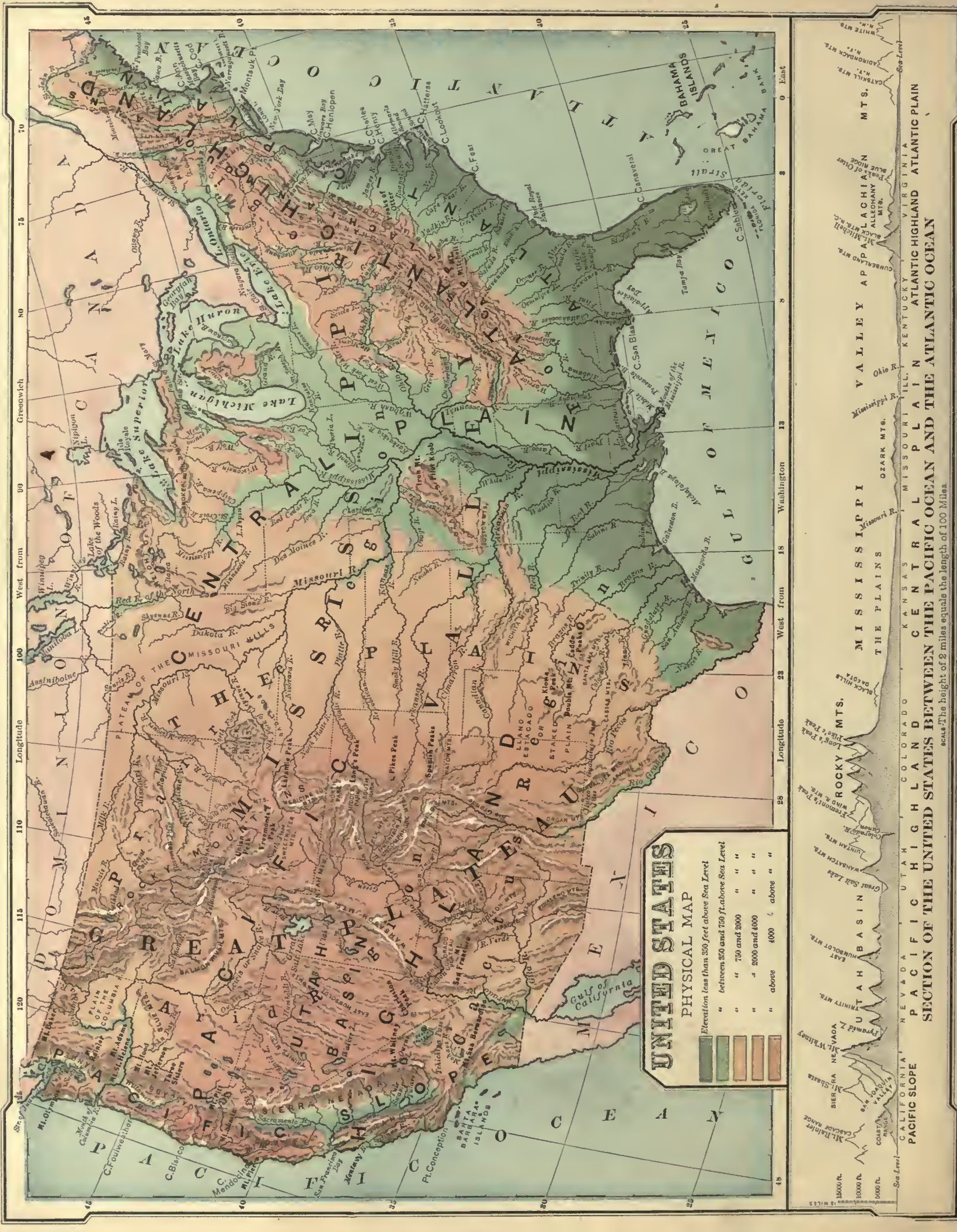
4. **Productions.**—The chief articles of commercial produce are sugar, rum, and molasses, from the sugar-cane; tobacco which makes the finest of cigars; cotton, coffee, and cacao; indigo and dye-stuffs; ginger and allspice; together with oranges, bananas, pine-apples, and many other delicious fruits.

5. **Population.**—The population of the West Indies numbers about four millions, three-fourths being negroes.

The early Spanish conquerors enslaved the native Indians, and worked them so hard that they eventually died out. Then the Spaniards brought great numbers of African slaves to these islands, and the blacks of the West Indies are their descendants.

6. **Government.**—Most of the islands of the West Indies are in the possession of European nations, principally Spain (which owns Cuba and Porto Rico), Great Britain (which owns Jamaica, the Bahamas, and most of the Lesser Antilles), and France. Hayti consists of two independent negro republics, — Hayti and San Domingo.

7. **Cities.**—The principal cities are Havana, the greatest sugar-market in the world, Matanzas, and Santiago (all three in Cuba), Kingston, the largest city in Jamaica, and San Juan in Porto Rico.



QUESTIONS ON THE PHYSICAL MAP.

Bound the United States. Which boundaries are natural boundaries? Between what degrees of latitude is the United States included? Between what degrees of longitude? What is the general direction of the Atlantic coast? Of the Pacific coast? Name all the capes from Cape Cod to Cape Sable (s.). What capes on the Pacific coast?

What highland region in eastern part of the United States? What plain to the east? To what ocean does it slope? What mountains in the Atlantic Highland? In what latitude is the southern termination of the Appalachian Mountains?

What great valley is between the Atlantic Highland and the Pacific Highland? Of what does the Mississippi Valley form a part? *Ans.* Of the Central Plain of North America. What great river drains this valley? Where is its source? Name its principal tributary from the Atlantic Highland. Its principal tributaries from the Pacific Highland.

What highland occupies the western half of the United States? What mountain-system divides it into two nearly equal parts? What region is east of the Rocky Mountains? What great rivers cross the Plains? What region is west of the Rocky Mountains? What plateau and "basin" (which is also a plateau) are in this region? What plain in the

northern part of this region? What lake in the Utah Basin? What river drains the central part of the Great Plateau? Where does it rise? and into what does it flow? What river drains the northern part of the Great Plateau? What two mountain-ranges border the Great Plateau on the west? What range near the Pacific coast? Where is the Pacific Slope?

Name the Great Lakes. Which one is wholly within the United States? What river drains the Great Lakes? In what direction do most of the rivers of the Atlantic Highland flow? What river breaks through the Appalachian Mountains? Of what river is it a tributary?

GENERAL VIEW.

1. Position. — The United States occupies the central and most valuable part of North America, being (Alaska excepted) wholly in the North Temperate Zone, and extending from Canada on the north to the Gulf of Mexico on the south.

2. The area of the United States is nearly equal to that of Europe. The average length from the Atlantic to the Pacific Ocean is about 2,500 miles, and the average breadth from north to south about 1,300 miles.

3. The surface presents three natural divisions, — *the Pacific Highland, the Atlantic Highland and Plain, and the Central Plain, or Mississippi Valley.*

I. THE PACIFIC HIGHLAND.

4. The western half of the United States is included within the Pacific Highland of North America. The Pacific Highland presents the following surface features: —

I. The Rocky Mountains, which, extending from north to south, divide the Highland into two nearly equal sections.

The Rocky Mountains form the chief watershed of the United States; and five of the largest rivers — the Missouri, the Rio Grande, the Colorado, the Columbia, and the Yukon — have their head streams in this region.

DESCRIPTION.

II. "The Plains," which extend eastward from the Rocky Mountains, descending in a long gentle slope to the valley of the Mississippi.

III. The Great Plateau, bordered on the east by the Rocky Mountains, and on the west by the lofty chains of the Sierra Nevada and Cascade Mountains. It includes the Colorado Plateau in the southeastern part, the Utah Basin in the central part, and the Plain of the Columbia in the northern part.

I. The Colorado Plateau is from 6,000 to 7,000 feet above the ocean level; the Utah Basin, from 3,000 to 4,000 feet; the Plain of the Columbia, about 2,000 feet.

II. The Great Plateau is drained by three great rivers, — the Columbia, which, after bursting the barrier of the Cascade range, flows into the Pacific Ocean; the Rio Grande, which flows southward from the Rocky Mountains into the Gulf of Mexico; and the Colorado, which, forcing its way through stupendous chasms and cañons, reaches the Gulf of California.

IV. The Pacific Slope, which extends from the Sierra Nevada and Cascade ranges westward to the Pacific Ocean. Between these chains and the lower elevations of the coast ranges are inclosed the great California Valley and the valleys of Oregon.

5. Climate. — The Pacific Highland has, in general, a very dry climate, with but little rain in summer, and little snow in winter. The Pacific Slope has a climate unlike that of any other part of the

United States: there are but two seasons, the rainy season (winter) and the dry season (summer).

6. Natural Advantages. — This section is the richest metalliferous region on the globe. Gold, silver, quicksilver, coal, and many other minerals abound. The forests of California, Oregon, and Washington, afford an exhaustless supply of the finest timber. The river valleys, especially in California and Oregon, are of great fertility, and excellent pasturage is found.

II. THE ATLANTIC HIGHLAND AND PLAIN.

7. The Atlantic Highland consists of the several parallel ranges of the Appalachian system, and extends from Canada nearly to the Gulf of Mexico.

The Appalachian system is intersected by the valleys of the Hudson and Mohawk rivers, thus forming a northern section, comprising New England and a part of New York; and a southern section, including all the rest of the Atlantic Highland.

8. The Atlantic Plain is the slope from the Appalachian system to the Atlantic Ocean.

The Atlantic Plain varies in width according as the mountains approach or recede from the coast. In New England it is about fifty miles in width, and at the mouth of the Hudson it narrows to a mere strip of coast; but it broadens southward to a width of three hundred miles.



PHYSICAL VIEW OF THE UNITED STATES.

9. **Rivers.**—The Atlantic Plain is drained by numerous navigable rivers, which flow at right angles with the Appalachian system into the Atlantic Ocean.

The larger rivers of the Atlantic Plain are navigable to the head of tide-water, the limits of which are marked by falls or rapids, as those of the Schuylkill at Philadelphia, of the Potomac at Georgetown, and of the James at Richmond. These falls and rapids furnish water-power.

10. **Climate.**—The Atlantic Highland and Plain, though wholly in the Temperate Zone, have a variety of climates. The North Atlantic section is naturally colder than the South Atlantic section. The winters on the Atlantic seaboard are, owing to local causes, much colder than those of the Pacific coast; and the Atlantic Highland and Plain differ from the Pacific Highland in having abundant rains, and being well watered throughout.

The rains of this section are supplied by the moist winds from the Atlantic Ocean, the Gulf of Mexico, and the Great Lakes.

11. **Natural Advantages.**—The principal natural advantages of the Atlantic Highland and Plain are their rich deposits of coal and iron, their extensive forests, generally fertile soil, abundant water-power, and situation on the Atlantic seaboard.

III. THE MISSISSIPPI VALLEY.

12. **Extent.**—The Mississippi Valley extends between the Atlantic Highland and the Pacific Highland, and occupies nearly one-half the area of the United States.

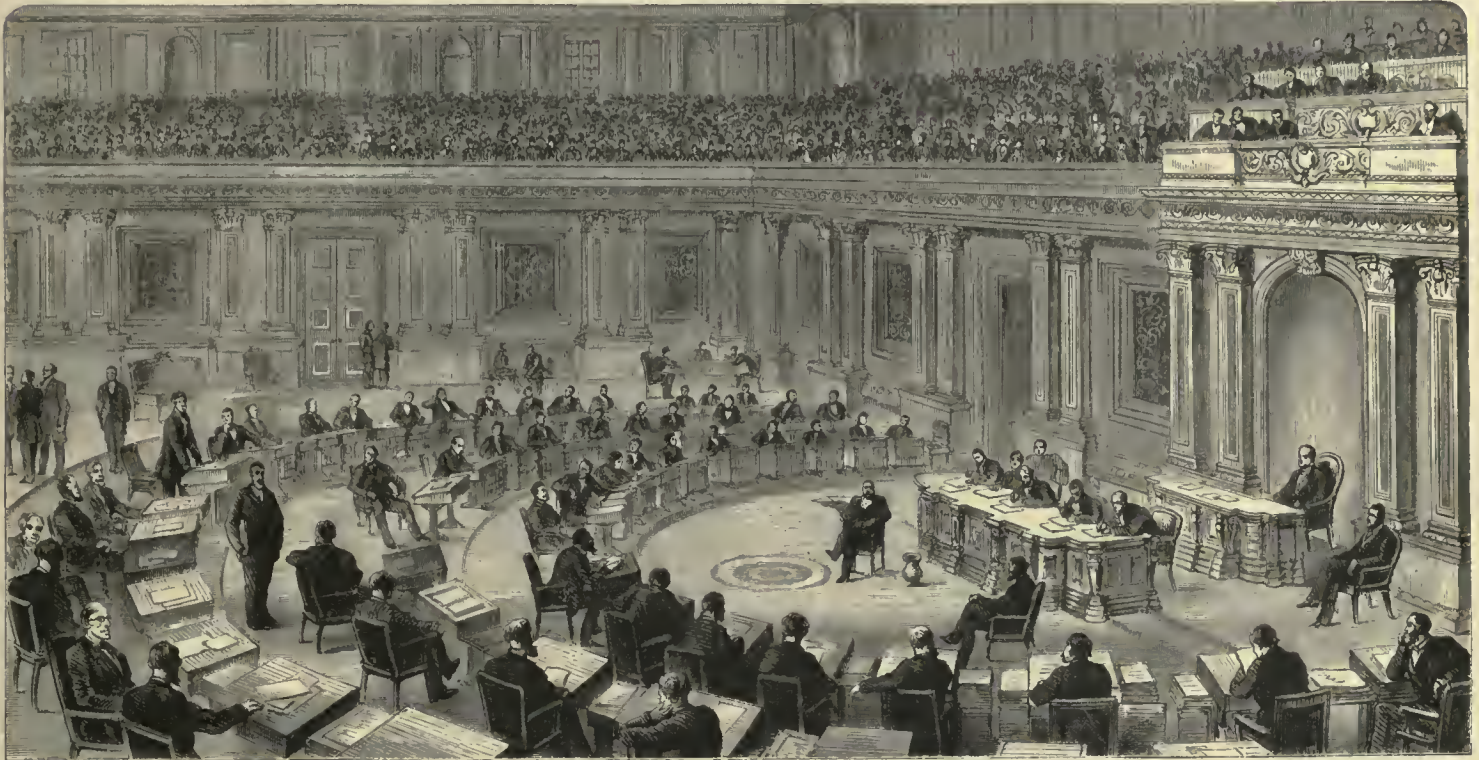
Much of this region is undulating, parts are hilly, and there are a few detached mountain districts; but on the whole the surface is that of a plain, with slopes toward the center from each of the two highland regions, and a general slope from the Height of Land southward to the Gulf of Mexico.

13. **Drainage.**—The Mississippi and its many tributaries, forming, next to the Amazon system, the most extensive river system in the world, furnish the principal drainage of the Mississippi Valley.

14. **Climate.**—The southern part has a semi-tropical climate, with mild winters; the northern has hot and sultry summers, and cold winters, with heavy snows. The whole section has abundant rains from the Gulf of Mexico and the Great Lakes.

15. **Natural Advantages.**—The principal natural advantages of the Mississippi Valley are its rich mines of coal, iron, copper, and lead, its vast forests, its great extent of fertile soil, and its numerous navigable rivers and lakes.

POLITICAL UNITED STATES.



INTERIOR OF THE SENATE CHAMBER IN THE CAPITOL AT WASHINGTON.

DESCRIPTION.

I. **Rank.**—The United States is the leading republic in the world, and ranks as one of the five most populous, powerful, wealthy, and progressive nations.

In extent of territory the United States ranks fourth among the great powers, being surpassed only by the Chinese, British, and Russian Empires.

2. The **population** by the census of 1880 was over fifty millions (50,155,783.)

3. **General Government.**—The general or federal government of the United States is republican in form (representative democracy). It has three departments,—the legislative, executive, and judicial.

I. The **legislative** department, or Congress, is composed of two bodies or houses,—the Senate and the House of Representatives.

II. The **executive** function is vested in a President, who is chosen for a term of four years.

III. The **judicial** function is vested in a Supreme Court, consisting of a Chief Justice and eight Associate Judges, who hold a session once a year in Washington City.

4 **National Capital.**—Washington, the capital of the United States, is in the District of Columbia.

5. **Political Divisions.**—The United States consists of thirty-eight States, nine Territories, the District of Columbia, and Alaska. For convenience of study, these are in this book divided into the following sections:—

New-England States.	Middle States.	Southern States: Eastern Division.	Southern States: Western Division.	Central States: Eastern Division.	Central States: Western Division.	Pacific Highland States: Mountain and Plateau Divisions.	Pacific Highland States: Coast Division.
1. Maine. 2. New Hampshire. 3. Vermont. 4. Massachusetts. 5. Rhode Island. 6. Connecticut.	1. New York. 2. New Jersey. 3. Pennsylvania. 4. Maryland. [District of Co- lumbia.] 5. Delaware.	1. Virginia. 2. West Virginia. 3. North Carolina. 4. South Carolina. 5. Georgia. 6. Florida. 7. Kentucky. 8. Tennessee. 9. Alabama. 10. Mississippi.	1. Louisiana. 2. Arkansas. 3. Texas. 4. <i>Indian Terri- tory.</i>	1. Ohio. 2. Indiana. 3. Illinois. 4. Wisconsin. 5. Michigan.	1. Minnesota. 2. Iowa. 3. Missouri. 4. Kansas. 5. Nebraska. 6. <i>Dakota Terri- tory.</i>	1. <i>Montana Ter.</i> 2. <i>Wyoming Ter.</i> 3. Colorado. 4. <i>New Mexico Ter.</i> 5. <i>Idaho Territory.</i> 6. Nevada. 7. <i>Utah Territory.</i> 8. <i>Arizona Ter.</i>	1. California. 2. Oregon. 3. <i>Washington Ter.</i> [Alaska.]





Noon on the Meridian of Greenwich 6 80 75 70 65
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THE
UNITED
STATES
OF
AMERICA

SCALE 1 Inch = 175 Miles

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EASTERN STATES, OR NEW ENGLAND.



VIEW OF BOSTON.

I.

QUESTIONS ON THE MAP.

I. QUESTIONS BY STATES.

The Section.—How many and what states in this section? Bound New England. Which is the largest of the New-England States? The smallest? Which three are nearly equal in size? Which has no sea-coast? Which is the most northern? The most southern? What mountain system covers a large part of New England? *Ans.*—The Appalachian system. Which state has no mountains? To what two systems do the rivers of New England belong? *Ans.*—To the Atlantic and the St. Lawrence systems. Name the principal rivers of the Atlantic system. In what general direction do they flow? Which are the largest rivers? Name the principal rivers of the St. Lawrence system. (It includes those flowing into Lake Champlain.) Which state has the greatest number of lakes?

Maine.—What are the principal bays? What are the largest islands off the coast? What three large rivers flow through Maine? What river forms part of the northern boundary? Of the eastern boundary? Name the largest lakes of Maine, and the rivers that drain them. What mountain near the eastern boundary? What mountain east of Chesuncook Lake? Name any other mountains in Maine. What city on the Penobscot? On the Kennebec? On Casco Bay? Which is the capital?

New Hampshire.—How many miles of sea-coast has New Hampshire? [Measure by scale.] What mountains are in the northern part? What river forms the western boundary? What river forms a partial boundary in the south-east? What river flows through the central part? What lake in the central part? Name three cities of New Hampshire on the Merrimac. Which is the capital? What is the seaport?

Vermont.—Along what parallel is the northern boundary of Vermont? What long lake forms part of the western boundary? What river forms the eastern boundary? Name the principal streams of this state belonging to the St. Lawrence system. What mountain range in this state? What city on Lake Champlain? What is the capital?

Massachusetts.—What two bays east? What sound south? What bay south? Name two capes. What two large islands off the southern coast? What group of islands south of Buzzards Bay? What sound between the Elizabeth Islands and Martha's Vineyard? What large river flows through

the state? What river in the north-eastern part? In the western part? What mountain range in the western part? What mountains near the Connecticut River? What mountain in the northern part? What is the capital? What places on the Merrimac? On the Connecticut? What city is in the central part of the state? What cities on Massachusetts Bay are north of Boston? What historic place on Cape Cod Bay?

Rhode Island.—What large bay in this state? What island is in it? What island off the southern coast belongs to this state? What cape (*point*) in the southern part? Name the two capitals of the state.

Connecticut.—What body of water south of Connecticut? What large island south of Connecticut? To what state does it belong? *Ans.* To New York. What is the principal river of this state? What river in the eastern part? In the western? What part of the state is mountainous? What is the capital? What two cities are on the Thames? What two on or near Long Island Sound?

II. REVIEW QUESTIONS.

States.—How bounded? What is the capital?

Maine? New Hampshire? Vermont? Massachusetts? Rhode Island? Connecticut?

Bays.—Where is it?

Passamaquoddy? Buzzards? Massachusetts? Penobscot? Casco? Long Island Sound?

Capes.—From what coast does it project?

Ann? Cod?

Mountains.—Where are they?

Green? White? Mount Washington? Hoosac?

Rivers.—Where does it rise? In what direction, through what states, and into what body of water, does it flow?

Penobscot? Kennebec? Saco? Androscoggin? Merrimac? Connecticut? Blackstone? Housatonic?

Lakes.—Where situated? By what drained?

Moosehead? Winnepisaukee? Champlain?

Cities.—In what part of what state is it? How situated?

Augusta? Portland? Bangor? Concord? Manchester? Portsmouth? Montpelier? Burlington? Brattleborough? Boston? Worcester? Lowell? Cambridge? Fall River? Springfield? Providence? Newport? New Haven? Hartford? Bridgeport? Norwich?

7 15 Local Time A. M. when Noon 7 10 on the Meridian 7 15 of Greenwich
Longitude 73 West from 73 Greenwich 71 70



THE
NEW ENGLAND
STATES
AND PART OF CANADA

SCALE 40 MILES = 1 INCH
10 20 30 40 50 60 70 80



II.

GENERAL DESCRIPTION.

1. **Situation and Area.**—The New England States are situated between the Atlantic Ocean and the state of New York. Their area is about one-fourth of that of Texas, and about one and a half times that of New York.

2. **Surface.**—New England occupies the northern section of the Appalachian system; and as the foot-hills extend nearly to the coast, the surface is generally broken or mountainous.

I. The longest and best defined range extends on the western side of the Connecticut River: it includes the Green Mountains of Vermont, and the Hoosac Mountains of Massachusetts.

II. On the eastern side of the Connecticut River is an irregular chain of mountain-groups extending from Massachusetts into Maine, and of which the loftiest are the White Mountains. Mt. Washington, the highest peak of the White Mountains, is 6,288 feet above the level of the sea.

3. **Coast.**—The coast, southward to Massachusetts Bay, is bold and rocky; the rest is low and sandy. It has numerous excellent harbors. The Atlantic Plain, in New England, is only from 40 to 60 miles wide.

4. **Drainage.**—Most of the numerous rivers belong to the Atlantic system. They are navigable only in the coast plain, but the many rapids and falls afford abundant water-power.

5. **Climate.**—The summers are hot, but short; the winters, long and severe.

6. **Productions and Pursuits.**—The leading pursuits are manufactures and commerce; but other industries, especially agriculture, the fisheries, and lumbering, are extensively carried on in different sections.

Agriculture.—Not enough grain is grown to supply the wants of the people; but great attention is given to the cultivation of vegetables and fruits, and to dairying, wool-growing, and stock-raising.

Manufactures.—The principal manufactures are cotton and woolen goods, boots and shoes, machinery, and cutlery. Manufacturing is greatly facilitated by abundant water-power and cheap access to the coal-fields of Pennsylvania.

Fishing.—The catching of cod and mackerel, off the coast and on the Banks of Newfoundland, and their preparation for market, are important industries in most of the maritime towns.

Lumbering.—In the three northern states are extensive forests of pine and hemlock, and the preparation of lumber is a leading pursuit.

Commerce.—New England has an immense foreign and domestic commerce, favored by its many fine harbors and its facilities for ship-building,

and developed by an extensive railroad system. The chief exports are manufactured articles, dairy-products, lumber, granite, and ice. The chief imports are breadstuffs and provisions, coal, and raw materials, especially iron, cotton, and wool.

III.

THE STATES.

REFERENCE TABLE.

STATES.	Area in Sq. Miles in 1880.	Population in 1880.	STATES.	Area in Sq. Miles in 1880.	Population in 1880.
Maine	33,040	648,936	Massachusetts . .	8,315	1,783,085
New Hampshire .	9,395	346,991	Rhode Island . .	1,250	276,531
Vermont . . .	9,565	332,286	Connecticut . .	4,990	622,700



COTTON SPINNING IN NEW ENGLAND.

1. **Maine** is noted for its extensive lumber manufacture, its ship-building, in which it ranks as the first state in the Union, and its fishing industry, in which it ranks next to Massachusetts.

2. **Chief Cities.**—Portland is the largest city and chief seaport, and is the main winter outlet for the St. Lawrence Valley. Bangor is one of the greatest lumber-marts in the world. Augusta is the capital.

3. **New Hampshire**, sometimes called the Switzerland of America, on account of the grandeur of its White Mountain scenery, is a manufacturing and farming state.

4. **Chief Cities.**—Manchester, the metropolis, and Nashua, are great manufacturing places. Ports-

mouth is the only seaport. Concord is the capital.

5. **Vermont** is principally devoted to stock-raising and dairying.

6. **Chief Cities.**—Burlington, on Lake Champlain, is the largest city. Montpelier is the capital.

7. **Massachusetts** ranks as the leading state in manufacturing and the fisheries, and as next to New York in commerce. It is noted for its many large cities.

8. **Chief Cities.**—Boston, the capital, is next to New York in foreign commerce, and is the business and literary metropolis of New England. Lowell, Lawrence, and Fall River are noted for their cotton manufactures. Lynn is famous for the manufacture of ladies' shoes; Worcester is a great manufacturing city; and Springfield contains the principal arsenal of the United States. Cambridge is the seat of Harvard College.

9. **Rhode Island**, the smallest but one of the most thickly-



MAKING MAPLE-SUGAR.



NAHANT.

NEW ENGLAND SCENES.



ICE-CUTTING.

ton and woolen goods, hardware, jewelry, and plated ware.

10. **Chief Cities.**— Providence, the metropolis, is the second city in New England. Newport is a famous watering-place. These cities are both capitals.

settled and prosperous states, is remarkable for its manufactures of cot-

11. **Connecticut** is noted for the extent and variety of its manufactures. It is also a fine agricultural state, and has an extensive coasting-trade.

12. **Chief Cities.**— New Haven, the seat of Yale College, is the largest city. Hartford, a manufacturing center at the head of ship-navigation on the Connecticut River, is the capital.

SUPPLEMENTARY NOTES.

History.— The name "New England" was given in 1614, by Capt. John Smith, who examined the shore from Penobscot to Cape Cod, and drew the earliest map of the region. The first settlement in New England was made by the Pilgrim Fathers at Plymouth, Mass., in 1620. The first settlers in Maine were fishermen, who built huts along the coast soon after the landing of the Pilgrims. Maine continued a part of Massachusetts till 1820. The first settlements in New Hampshire were made in 1623, near Portsmouth and at Dover. Vermont was a part of New York and New Hampshire till 1791, when it came into the Union as a separate state. The first settlement in Rhode Island was made in 1636, at Providence, by Roger Williams and some friends. The first settlement in Connecticut was made in 1635, at Windsor.

Names.— The name "Maine" comes from the word *main*; this part of New England having early been called the "mayne land," in distinction from the islands. "New Hampshire" was so called by the first English proprietor, Capt. John Mason, who had previously been governor of Portsmouth in *Hampshire*, England. "Vermont" is derived from the French *ver*, green, and *mont*, mountain. "Massachusetts" is the native Indian name. "Rhode Island" is from the Dutch name of the island,—*Roodt Eylandt*, red island. "Connecticut" is the Indian name of the river, meaning *long river*.

Scenery.— The White Mountains of New Hampshire present the grandest scenery east of the Sierra Nevada, and are the resort of thousands of tourists every summer. From the top of Mount Washington, up whose steep sides a railroad of novel construction carries the traveler, a glimpse of the Atlantic, beyond Portland, is obtained. New England abounds in lakes, many of which are exceedingly beautiful. Moosehead in Maine is the largest, and Winnepesaukee in New Hampshire one of the most lovely. Other noted points are Mount Holyoke, Mass., from the summit of which a superb view of the picturesque Connecticut valley is obtained, the wave-worn promontory of Nahant, and Newport, the most fashionable watering-place on the Atlantic coast.

Specialties of Manufacture.— There is scarcely any article, from an anchor or a steam-engine to a pin, that is not made by the ingenious and industrious New-Englanders. The boots and shoes, the cutlery and fire-arms, of New England, are distributed to almost every part of the world.

The sewing-machine, one of the greatest of labor-saving contrivances,

was invented by Elias Howe of Massachusetts, in 1846. It has cheapened the manufacture of all kinds of clothing: boots and shoes are now sewed by it. The construction of these machines is an important branch of New England manufacture.

The process of vulcanizing India-rubber was discovered about the same time by Charles Goodyear of Massachusetts. Since this discovery, India-rubber has been turned to account in the fabrication of an endless number of useful articles. Rubber goods are extensively manufactured in Massachusetts and Connecticut.

Among the thousand articles of New England workmanship may be mentioned paper, pianos, and pins (most of the pins used in the United States are manufactured at Waterbury and Birmingham, Conn.); combs, carriages, and clocks; buttons, buckles, and buckets; watches, wire, and wooden-ware; rifles, revolvers, and ribbons; screws, soap, and silver-ware; German-silver-ware and Britannia-ware; locks and jewelry; hooks and eyes; together with innumerable other small articles known under the name of "Yankee notions."

The great national armory of the United States is situated at Springfield, Mass. It is capable of turning out fifteen thousand rifles a month. All the parts of the Springfield rifle are made by machinery, and each rifle requires five hundred distinct operations before it is completed.

Peculiar Productions.— Nature has been niggardly in her gifts to New England, and it has been said that Massachusetts exports none of her natural productions except her rocks and her ice. Yet the "rocks" are valuable; for the granite of Massachusetts and New Hampshire, the lime and slate of Maine, the marbles of Vermont, and the brownstone of Connecticut, are important exports. In the winter, ice is cut and stored in immense quantities, especially in Maine and Massachusetts, and is shipped to the East Indies, the West Indies, and other iceless climes.

The vast forests of pine and hemlock in northern New England are another natural source of wealth. The lumbermen go into the woods in the fall, and remain all winter, felling the trees, and cutting them into logs. These they draw over the snow-covered ground to some stream; and when it thaws in spring, the logs float down to the saw-mills.

Vermont has a peculiar gift of nature in the sugar-maple, a deciduous tree which yields a sap that is boiled into sugar. Several thousand tons of maple-sugar are made in that state every year.

MIDDLE STATES.



VIEW OF NEW YORK CITY.

I.

QUESTIONS ON THE MAP.

I. QUESTIONS BY STATES.

The Section.—How many states in this section? Which two are the largest? Which two are nearly equal in size? Which is the smallest? What mountain-system extends through a large part of this section? *Ans.* The Appalachian system. To what systems do the rivers of this section belong? *Ans.* To the Atlantic, St. Lawrence, and Mississippi systems. In what longitude, reckoned from Greenwich, is Washington? What state capital is in nearly the same longitude?

New York.—What bodies of water form a boundary of this state on the north-west? What large island in the south-eastern part of the state? What bay at the mouth of the Hudson River? What mountains in the north? In the east? What mountain-range enters New York from New Jersey? Name the principal rivers flowing from this state into Lake Ontario. Into Pennsylvania. What is the principal tributary of the Hudson? What river connects Lake Erie with Lake Ontario? What falls in this river? What canal traverses the state? What large city on Lake Ontario? On Lake Erie? What cities on the Erie Canal? What two large places in the south-central part of the state? What is the capital? Name large cities near Albany. What cities on the Hudson south of Albany? What great city at the mouth of the Hudson? What large city on Long Island?

New Jersey.—What bodies of water form the western boundary? What cape in the northern part? In the southern part? What mountain-range traverses the north-western part? On what river is the capital? What four important cities in the north-eastern part?

Pennsylvania.—With what parallel does most of the northern boundary nearly coincide? What river forms the eastern boundary? Name the principal mountains. What two large rivers in this state unite to form the Ohio River? In what lake does the Alleghany rise? What large river flows into Chesapeake Bay? What city on Lake Erie? What two at the head of

the Ohio? What important cities are nearly on the meridian of Washington? Name the two largest cities in the north-east. On the Schuylkill. What is the capital?

Delaware.—What three bodies of water form the eastern boundary? What cape opposite Cape May? What large city in the north? Name the capital.

Maryland.—What body of water divides the state into two parts? What river separates it from Virginia? What part is mountainous? Name the principal ranges. What two cities on Chesapeake Bay? Which is the capital? What city in the north-west?

District of Columbia.—On what river is it? What state forms three of its boundaries? What large city in the district? What is Washington?

II. REVIEW QUESTIONS.

States.—*How bounded? What is the capital?*

New York? New Jersey? Pennsylvania? Delaware? Maryland?

Bays and Sounds.—*Where is it?*

Chesapeake? Delaware? New York? Long-Island Sound?

Capes.—*From what coast does it project?*

Sandy Hook? May? Henlopen?

Mountains.—*Where are they?*

Adirondack? Catskill? Chestnut Ridge? Laurel Ridge? Alleghany? Tuscarora? Blue? Shawangunk?

Rivers.—*Where does it rise? In what direction, through what state or states, and into what body of water, does it flow?*

Mohawk? Hudson? Delaware? Susquehanna? Alleghany? Monongahela? Potomac?

Cities.—*In what part of what state is it? How situated?*

Washington? Albany? Trenton? Harrisburg? Dover? Annapolis? New York? Philadelphia? Brooklyn? Baltimore? Newark? Jersey City? Rochester? Allegheny? Troy? Syracuse? Scranton? Reading? Paterson? Wilmington?



II.

GENERAL DESCRIPTION.

1. **Names and Area.**—The Middle States are New York, New Jersey, Pennsylvania, Delaware, and Maryland. In this section also is the District of Columbia. The area of the Middle States is about twice that of New England.

2. **Surface.**—The greater part of this section is in the Atlantic Highland, but the western part is in the Central Plain; and hence it includes three natural divisions: the Atlantic Plain, rising westward through foot-hills into the ridges of the Appalachian system, west of which is a low plateau descending to Lakes Ontario and Erie and the Ohio River.

The mountains are chains and ridges of the Appalachian system, the principal being the Adirondack and Catskill Mountains in New York, and the Blue, Tuscarora, and Alleghany Mountains in Pennsylvania.

I. The Appalachian system is intersected by a low depression formed by the valley of the Hudson and Mohawk Rivers: this separates the Adirondack Mountains from the rest of the system, and forms a natural highway of communication between the Atlantic seaboard and the Mississippi Valley. The Erie Canal, which follows the valley of the Mohawk, connects the waters of Lake Erie at Buffalo with the Hudson at Albany.

II. Mount Marcy (5,402 feet in height), in the Adirondack Mountains, is the loftiest summit of the Appalachian system in the Middle States. The wilderness of the Adirondacks is still the haunt of bears, deer, and other wild animals.

3. The Atlantic Plain is very narrow in New York, but it increases in width to over 100 miles in southern Pennsylvania.

4. **Rivers.**—The rivers of the Middle States belong to the Atlantic system, except those of the western slope, which belong to the Mississippi and St. Lawrence systems.

5. The **Climate** presents marked contrasts, the winters being long and severe in northern New York, and comparatively short and mild in southern Maryland.

6. **Productions and Pursuits.**—The leading occupations are manufacturing and commerce; but agriculture, grazing, and mining are all great and important industries.

Manufactures.—Manufacturing in the Middle States is facilitated by abundant water-power and by the coal of Pennsylvania and Maryland. The principal manufactures are cotton and woolen goods, iron and steel, boots and shoes, flour and meal, and spirituous and malt liquors.

Commerce.—This section has a vast foreign and domestic commerce, which is favored by its central position, its fine harbors, and its extensive system of lake, river, canal, and railroad communication.

Agriculture.—The climate and soil are favorable to agriculture, and all the grains except rice are largely raised. The crop of hay and potatoes is immense; the raising of fruit and vegetables for the markets of the great seaboard cities, and stock-raising and dairying, are extensively carried on.

Minerals.—New York yields salt; New Jersey, iron and zinc; Pennsylvania, coal and iron; and Maryland, coal. The petroleum of Pennsylvania is a product of great value, and is largely exported.

III.

THE STATES.

REFERENCE TABLE.

STATES.	Area in Sq. Miles 1880.	Population in 1880.	STATES.	Area in Sq. Miles. 1880.	Population in 1880.
New York . . .	49,170	5,082,871	Delaware . . .	2,050	146,608
New Jersey . .	7,815	1,131,116	Maryland . . .	12,210	934,943
Pennsylvania . .	45,215	4,282,891	[Dist. of Columbia.]	70	177,624



COMMERCE IN THE MIDDLE STATES.

1. New York is the foremost of the states in population, wealth, and commerce, and hence is often called the "Empire State."

New York has more than one-tenth of the population, and one-seventh of the wealth, of the United States.

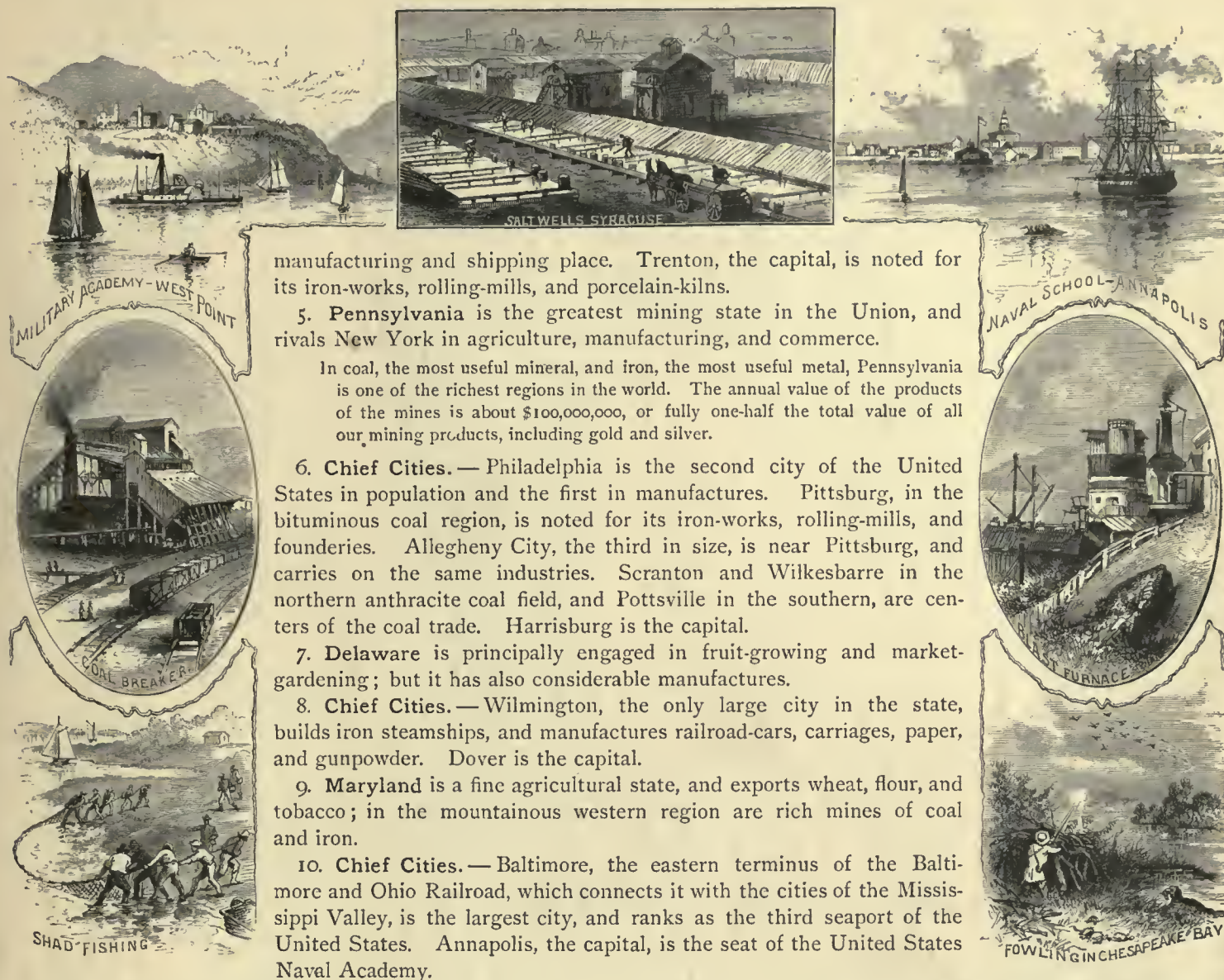
2. **Chief Cities.**—New York City, the largest city in the United States, and, next to London and Paris, the largest in the world, is the commercial and financial metropolis of the Western Continent. Brooklyn, in population the third city of the United States, is closely connected with New York by numerous steam-ferreries.

New York City, Brooklyn, and Jersey City (N.J.), though separate cities, yet form one compact business center, with a population of over 2,000,000.

Among the other important cities of New York the four largest are Buffalo, on Lake Erie, noted for its manufactures, and its lake and canal trade; Rochester, on the upper falls of Genesee River, noted for its water-power and its large manufacturing and milling interests; Troy, on the left bank of the Hudson, noted for its iron and steel-works; and Syracuse, for its varied manufactures and its immense salt-works. Albany, on the Hudson, is the capital.

3. New Jersey is principally engaged in raising vegetables and fruit for the markets of New York City on the north, and Philadelphia on the south. In the northern part of the state are many large manufacturing cities, and the mining of iron and zinc are important industries.

4. **Chief Cities.**—Newark, the largest city, is noted for its manufacture of India-rubber and leather goods. Jersey City, on the west shore of New York Bay, is an important



manufacturing and shipping place. Trenton, the capital, is noted for its iron-works, rolling-mills, and porcelain-kilns.

5. Pennsylvania is the greatest mining state in the Union, and rivals New York in agriculture, manufacturing, and commerce.

In coal, the most useful mineral, and iron, the most useful metal, Pennsylvania is one of the richest regions in the world. The annual value of the products of the mines is about \$100,000,000, or fully one-half the total value of all our mining products, including gold and silver.

6. Chief Cities.—Philadelphia is the second city of the United States in population and the first in manufactures. Pittsburg, in the bituminous coal region, is noted for its iron-works, rolling-mills, and foundries. Allegheny City, the third in size, is near Pittsburg, and carries on the same industries. Scranton and Wilkesbarre in the northern anthracite coal field, and Pottsville in the southern, are centers of the coal trade. Harrisburg is the capital.

7. Delaware is principally engaged in fruit-growing and market-gardening; but it has also considerable manufactures.

8. Chief Cities.—Wilmington, the only large city in the state, builds iron steamships, and manufactures railroad-cars, carriages, paper, and gunpowder. Dover is the capital.

9. Maryland is a fine agricultural state, and exports wheat, flour, and tobacco; in the mountainous western region are rich mines of coal and iron.

10. Chief Cities.—Baltimore, the eastern terminus of the Baltimore and Ohio Railroad, which connects it with the cities of the Mississippi Valley, is the largest city, and ranks as the third seaport of the United States. Annapolis, the capital, is the seat of the United States Naval Academy.

11. The District of Columbia is an irregular area of 70 square miles on the Maryland side of the Potomac. It contains Washington, the capital of the United States.

SUPPLEMENTARY NOTES.

History.—The name "Middle States" was originally given to those states situated between New England and the Southern States, at the time our country was confined to the narrow strip of the Atlantic seaboard.

The settlement of this section was very different from the settlement of New England. The New England colonies were all settled by men of the same nationality (English), and of the same sect (the Puritan); but the Middle Colonies were established by people of very diverse origin and creed,—by English Episcopalians, English Quakers, and English Catholics, by Swedes, by Germans, and by Hollanders.

The territory which is now the state of New York was discovered in 1609, by Henry Hudson (an Englishman in the employment of the Dutch East India Company) on the Hudson River side, and by Champlain (the French governor of Canada) on the Lake Champlain side. The first settlement was made by some Dutch (Hollandish) traders, on Manhattan (or New York) Island, which they bought from the Indians for sixty guilders (\$25). The first settlement in New Jersey was made in 1620, at Bergen. The first English settlement in Pennsylvania was made in 1681, by a party of Quakers sent out by William Penn. The first settlement of Delaware was made in 1638, by a company of Swedes and Finns con-

ducted by Peter Minuit, who had been Dutch governor of New Netherlands (New York). The first settlement of Maryland was made in 1634, by a colony of English Catholics, then persecuted in England.

Names.—The name New York was given to New Netherlands after it was taken from the Dutch by the English in 1664. It was so named in honor of the Duke of York and Albany (afterwards the English King James II.), to whom his brother King Charles II. granted the territory. The name New Jersey was given by Sir George Carteret, to whom (with Lord Berkeley) the province was ceded by Charles II., and who had been governor of the little island of *Jersey*, England. The name Pennsylvania signifies *Penn's Woodland* (Latin *sylva*, a wood), in honor of William Penn, to whom the province was granted by the English government in payment of a debt due his father, Admiral Penn. Delaware takes its name from Lord De la Ware, governor of Virginia, who in 1610 entered the bay bearing his name. The name Maryland commemorates the fact that in the charter of King Charles I., assigning the territory to Lord Baltimore, the region was called *Terra Maria* (Mary's Land), in honor of Queen Henrietta Maria, wife of Charles I. As New York is called the "Empire State," so Pennsylvania is called the "Keystone State," and New Jersey, the "Garden State."

SOUTHERN STATES: EASTERN DIVISION.

I.

QUESTIONS ON THE MAP.

I. QUESTIONS BY STATES.

The Section.—How many and what states in this section? Which states border on the Atlantic Ocean? Which states are on the Gulf of Mexico? Which states are bordered by the Mississippi River? By the Ohio? What mountain-system extends through this section? In which state does it terminate? Through what states does the Blue Ridge extend? What states are partly separated by the Alleghany range? By the Cumberland range? By the Iron or Smoky Mountains? To what three systems do the rivers of this section belong? *Ans.* To the Atlantic, the Gulf, and the Mississippi systems. Name the largest rivers flowing into the Atlantic Ocean. Into the Gulf of Mexico. What are the chief tributaries of the Mississippi in or bordering this section?

Virginia.—What bay extends into this state? What is the tongue of land east of Chesapeake Bay called? *Ans.* The Eastern Shore. Name four rivers flowing into Chesapeake Bay. What two capes at its entrance? What mountains extend through Virginia? What ranges form partial boundaries? What tributary of the Potomac flows between the Blue Ridge and Alleghany Mountains? What two seaports near the mouth of the James? What city on the James is the capital? What city on the Appomattox?

West Virginia.—What rivers form partial boundaries of West Virginia? What mountains form a partial boundary? Name the principal tributaries of the Ohio in or bordering this state. What city is the capital? On what river is it? What other city on the Ohio?

North Carolina.—What two large sounds on the coast of North Carolina? What are the principal rivers flowing into these sounds? Name three capes on this coast. What mountains extend through the state? What mountains on the west-

ern boundary? What spur connects the Blue Ridge with the Smoky Mountains? What peak in the Black Mountains? In what direction, and into what, do most of the rivers flow? Name two seaports. What city on the Neuse River? On Cape Fear River? What city is the capital?

South Carolina.—What mountains form part of the northern boundary? What river forms the south-western boundary? What is the principal river of this state? What two branches form it? On what branch is the capital? Name the principal seaport.

Georgia.—What river forms the north-eastern boundary of Georgia? What river forms a part of the western boundary? Name the other two chief rivers of Georgia. What mountains in the northern part? What is the capital? What is the principal seaport?

Florida.—What natural division of land is Florida? Between what waters does it project? What capes on the coast? What two bays on the Gulf coast? What islands south of Florida? What great swamp in the southern part? What cities on the coast? What city is the capital?

Kentucky.—What natural boundaries has Kentucky on the north and west? What are the principal tributaries of the Ohio River in this state? What mountains in the south-eastern part? What city is the capital? What important cities on the Ohio? What places on the Mississippi?

Tennessee.—What two mountain-ranges traverse Tennessee? Which forms a natural boundary? What natural boundary has the state on the west? What are the two principal rivers in this state? What city is the capital? What cities in East Tennessee? What city on the Mississippi?

Alabama.—What is the extent of Gulf coast in Alabama? What bay on the coast? What river flows into it? What are the two chief branches of Mobile River? What river forms a partial boundary? What part of the state is mountainous? To what system do these mountains belong? Where is the capital? What seaport has this state?

II.

GENERAL DESCRIPTION.

1. **Position and Area.**—The Eastern Division of the Southern States is south of the Middle States and the Ohio River, and east of the Mississippi River. The area of these states is twice that of New England and the Middle States together.

2. **Surface.**—This section belongs to the Atlantic Highland and Plain, and to the Central Plain, or Mississippi Valley.

3. **The Atlantic Plain** includes a low sandy or swampy coast region, west of which is a sandy belt called the "Pine Barrens;" and still farther west, and reaching to the ridges of the Appalachian system, is a fertile "upland" district.

I. Along the coast there is a series of swamps and marshes, extending from the Dismal Swamp of Virginia to the Everglades of Florida, and along the Gulf coast to Texas. These are covered with cypress, magnolias, and yellow jessamine.

II. South of Virginia the shores of the Southern States are curtained with a chain of long, narrow, and sandy

Mississippi. —What natural boundary has Mississippi on the west? What sound south? What are the principal tributaries of the Mississippi in this state? What river flows into Mississippi Sound? On what river is the capital? What two cities on the Mississippi?

II. REVIEW QUESTIONS.

States.—How bounded? *What is the capital?* Virginia? West Virginia? North Carolina? South Carolina? Georgia? Florida? Kentucky? Tennessee? Alabama? Mississippi?

Bays.—*Where is it?*

Chesapeake? Albemarle Sound? Pamlico Sound? Tampa? Appalachee? Mobile? Mississippi Sound?

Capes.—*From what coast does it project?*

Charles? Henry? Hatteras? Lookout? Fear? Canaveral? Sable? St. Blas?

Mountains.—*Where are they?*

Cumberland? Smoky? Alleghany? Blue Ridge? Peaks of Otter?

Rivers.—*Where does it rise? In what direction, through what states, and into what body of water, does it flow?*

Potomac? Rappahannock? York? James? Great Kanawha? Big Sandy? Shenandoah? Roanoke? Neuse? Cape Fear? Pedee? Santee? Savannah? Altamaha? St. John's? Chattahoochee? Flint? Cumberland? Tennessee? Pearl? Mobile? Alabama?

Cities.—*In what part of what state is it? How situated?* Richmond? Petersburg? Norfolk? Alexandria? Lynchburg? Raleigh? Wilmington? New Bern? Wheeling? Parkersburg? Charleston? Columbia? Savannah? Atlanta? Augusta? Columbus (Ga.)? Tallahassee? Jacksonville? Key West? Pensacola? St. Augustine? Frankfort? Louisville? Covington? Newport? Nashville? Memphis? Chattanooga? Knoxville? Montgomery? Mobile? Selma? Huntsville? Jackson? Vicksburg? Columbus (Miss.)? Natchez?

islands. Between these are navigable inlets; but, as they are mostly obstructed with sand-bars, there are not many southern harbors into which the largest vessels can enter.

111. The coast region and the Pine Barrens form the tide-water section of the South Atlantic states. On or near the "Ridge" which separates this section from the upland region are the most important inland cities of these states,—as Richmond, Petersburg, Raleigh, Columbia, Augusta, Milledgeville, and Montgomery.

4. **The Appalachian mountain-system** extends in a south-westerly direction from Virginia into central Alabama.



SOUTHERN FLORIDA

Same Scale as the Large Map



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5. **Central Plain.**—The Central Plain, or Mississippi Valley, includes the greater part of West Virginia, Kentucky, Tennessee, Alabama, and the whole of Mississippi. The general slope is toward the Gulf of Mexico.

6. **Climate.**—The northern part of the south-eastern states has a warm-temperate, and the southern a semi-tropical, climate. The summers are long and hot, and in the far South there is scarcely any winter. Abundant rain, from the moist winds of the Atlantic Ocean and the Gulf of Mexico, falls in this section.

7. **Vegetation.**—The magnolias, the palmetto, and the cypress, with pendent moss, characterize the coast belt; farther inland is the zone of the pine; this is succeeded by forests of oak and the deciduous trees. In the southern part of the coast region are forests of live-oak, the most valuable timber for ship-building.

8. **Rivers.**—The rivers of this section belong to three systems,—the Atlantic system, the Mississippi system, and the Gulf system.

9. **Natural Advantages.**—The soil is admirably adapted for the growth of cotton and the cereals, and, in the southern part, of semi-tropical fruits. The forests supply ship-timber and naval stores. Coal and iron, salt, marble, and gypsum, are among the mineral riches of this section.

10. **Agriculture.**—The fertile soil, abundant moisture, and warm temperature, of this section, give rise to its great industry,—agriculture. The chief products are cotton, tobacco, corn, rice, and sweet-potatoes.

Cotton: Mississippi, Georgia, and Alabama. *Tobacco:* Kentucky, Virginia, Tennessee, and North Carolina. *Corn:* Kentucky, Tennessee, North Carolina, and Georgia. *Rice:* South Carolina, Georgia, and North Carolina. *Sweet-potatoes:* North Carolina, Georgia, Alabama, and Mississippi.

11. **Other industries** pursued in the Southern States are manufacturing, mining, lumbering, and commerce.

Manufactures.—The principal manufacturing establishments are iron-works, rolling-mills, cotton and woolen mills, hemp-factories, lumber-mills, and tobacco-factories.

Mining.—Coal and iron abound in Virginia, West Virginia, Tennessee, and Alabama, and the mining interest is developing rapidly.

Lumbering is largely carried on in the pine-forests of the coast region. From the long-leaved pitch-pine (a different tree from the northern pine) are obtained naval stores; that is, pitch, tar, and turpentine.

Commerce.—The chief exports are cotton, tobacco, rice, lumber, and naval stores, shipped from Norfolk, Charleston, Savannah, and Mobile, which are the principal seaports.

III.

THE STATES.

STATES.	Area in Sq. Miles in 1880.	Population in 1880.	STATES.	Area in Sq. Miles in 1880.	Population in 1880.
Virginia . . .	42,450	1,512,565	Florida . . .	58,680	269,493
West Virginia .	24,780	613,457	Kentucky . . .	40,400	1,643,690
North Carolina .	52,250	1,399,750	Tennessee . . .	42,050	1,542,359
South Carolina .	30,570	995,577	Alabama . . .	52,250	1,262,505
Georgia . . .	59,475	1,542,180	Mississippi . . .	46,810	1,131,597

1. **Virginia** is principally engaged in agriculture, the leading staples being tobacco, wheat, and corn. Secondary interests are mining, market-gardening, and oystering.

2. **Chief Cities.**—Richmond, at the head of tide-water on the James River, is the capital and largest city, and is noted for its tobacco-factories, flour-mills, and iron-works. Norfolk is the principal seaport of Virginia. Petersburg, at the head of tide-water on the Appomattox, has a large trade in grain and tobacco.

3. **West Virginia** is rich in coal, iron, salt, and petroleum; and the development of these resources, together with agriculture, constitutes her principal industries.

4. **Chief Cities.**—Wheeling, on the Ohio River, is the capital and largest city, and contains numerous iron-works and manu-

factories. Parkersburg is next in importance.

5. **North Carolina** is chiefly engaged in raising tobacco, cotton, corn, and sweet-potatoes. Lumbering is important, and in this and the production of pitch, tar, turpentine, and rosin, she is the leading state.

6. **Chief Cities.**—Wilmington is the largest city and chief seaport. Raleigh is the capital.

7. **South Carolina** is noted for the production of cotton of the finest quality, and of rice, in the growing of which she is the leading state.

8. **Chief Cities.**—Charleston, the largest city, is a leading cotton port. Columbia is the capital.

9. **Georgia** ranks as the first of the Southern States in manufactures, and the second in the production of cotton, rice, and sweet-potatoes.

10. **Chief Cities.**—Savannah is an important city and the principal seaport. Atlanta, the capital and largest city, is a railroad, manufacturing, and business center. Augusta, Macon, and Columbus are cotton-manufacturing cities.



PICKING COTTON.

11. Florida is noted for its production of oranges, lemons, figs, and other semi-tropical fruits.

12. Chief Cities.—Key West and Jacksonville are the largest cities. Pensacola is an important seaport. Tallahassee is the capital.

13. Kentucky ranks as the first of the Southern States in population and in the production of tobacco and hemp.

14. Chief Cities.—Louisville, on the Ohio River, is the largest city and the commercial center of the state; Covington and Newport, connected by bridges with Cincinnati, are manufacturing points. Frankfort is the capital.

15. Tennessee is divided into East Tennessee, Middle Tennessee, and West Tennessee. The leading occupations are mining and grazing in the eastern, the raising of cotton, corn, and wheat in the middle, and cotton and tobacco growing in the western section.

16. Chief Cities.—Memphis, on the Mississippi, is the principal cotton and grain mart between St. Louis and New Orleans. Nashville, the capital and largest city, is the business center of Middle Tennessee. Knoxville and Chattanooga are the chief cities of East Tennessee.

17. Alabama is principally engaged in raising cotton and corn; but manufacturing and the working of her coal and iron mines are growing industries.

18. Chief Cities.—Mobile, the largest city, is a leading cotton port. Montgomery the capital, Selma, and Tuscaloosa, are important depots of the cotton business.

19. Mississippi is distinguished as the leading state in the culture of cotton. Over half a million bales of this staple are produced in the state every year.

20. Chief Cities.—Vicksburg on the Mississippi River, and Natchez, a river town one hundred miles farther south, are the most important places. Jackson is the capital. Mississippi has no large seaport.

SUPPLEMENTARY NOTES.

History.—Virginia was the name given by the English to nearly the whole Atlantic coast, after the explorations and attempted settlements made under the patronage of Sir Walter Raleigh in 1584-87. The first settlement within the limits of the state was made by an English colony at Jamestown, in 1607. West Virginia formed a part of the State of Virginia till 1862, when it was organized as a separate state. The first settlements in North Carolina were made between 1640 and 1650, by emigrants from Virginia. The first settlement in South Carolina was made by English settlers in 1670, at Old Charleston. The Carolinas, North and South, formed one province till 1729.

The first settlement in Georgia was made in 1733, at Savannah, by an English colony led by Gen. James Oglethorpe.

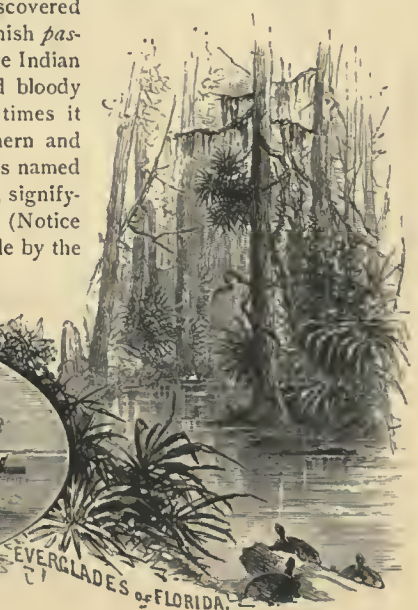
The first European settlement in Florida was made on the River St. John's in 1564, by a colony of French Huguenots; but the Spaniards, claiming the whole country, massacred the settlers, and in 1565 founded St. Augustine, the oldest town within the limits of the United States. In 1819 Florida was purchased from Spain by the United States for five million dollars.

Kentucky is the oldest of the states west of the Appalachian Mountains. The way for the settlement of both Kentucky and Tennessee was prepared by the explorations of the bold North Carolina hunter, Daniel Boone. In 1775 lasting settlement in Kentucky was made by Boone and some friends. Kentucky came into the Union as a state in 1792.

The first settlement in Tennessee (originally a part of North Carolina) was made in 1778 by a party of refugees from British tyranny in Carolina. Tennessee entered the Union in 1796.

The territory now occupied by Alabama and Mississippi belonged to the state of Georgia, and by that state was in 1800 ceded to the United States. The region was then organized as the "Territory of Mississippi." In 1817 the state of Mississippi was carved out of this territory, and in 1819 the state of Alabama.

Names.—Virginia (a name which, as before said, was at first given to the whole Atlantic coast claimed by the English) was so called in honor of Queen Elizabeth, "the Virgin Queen." West Virginia was so called when formed into a state in 1862. The Carolinas were so named in honor of the English king Charles II. (Latin *Carolus*). The name Georgia was given in honor of the English king George II., who granted the territory to Oglethorpe and other "trustees." Florida was so named by the Spanish explorer, Ponce de Leon, because the region was discovered on Easter Sunday, called in Spanish *pascua florida*. Kentucky is a native Indian name signifying "the dark and bloody ground," because in aboriginal times it was the battlefield of the northern and southern Indians. Tennessee is named after the river of the same name, signifying "the river of the big bend." (Notice on the map the great curve made by the



Tennessee River.) Alabama is called after the river of the same name, signifying "here we rest." Mississippi is named after the Mississippi, signifying "the father of waters."

Scenery and Curiosities.—The passage of the Potomac at Harper's Ferry, Va., where the Shenandoah and Potomac Rivers force their united streams through the Blue Ridge, was called by Thomas Jefferson "one of the most stupendous scenes in nature, and well worth a voyage across the Atlantic to witness." In Virginia, also, is the famous Natural Bridge over Cedar Creek. It is sixty feet long, and spans a chasm two hundred feet in depth. On the abutments of the bridge there are many names carved in the rock, of persons who climbed as high as they dared on the precipice. Highest of all, for nearly three-quarters of a century, was that of George Washington, who, when a youth, ascended to a point never before reached. However, in 1818 this feat was surpassed by a student of Washington College, named James Piper, who actually climbed from the foot to the top of the rock. In Georgia there are many interesting waterfalls, among which the most famous are the falls of Tallulah, 536 feet high.

One of the greatest natural curiosities in the world is the Mammoth Cave of Kentucky, discovered in 1809. It is the largest cave known. It extends nine miles, and contains a succession of marvelous chambers, grottoes, domes, bottomless pits, lakes, rivers, and cataracts. The vaulted roofs are studded with stalactites of gigantic size, and in the lakes are found eyeless fish and crawfish.

The southern part of the peninsula of Florida is of coral formation; and the Florida Keys—so called from the Spanish word *cayos*, "rocky islets"—are coral islands, formed during unnumbered ages by the stony secretions of an animal called the coral polyp. Key West, the most important of the keys, was for generations the haunt of pirates and smugglers, but is now an important naval station, and the dwelling-place of a band of "wreckers," whose business it is to assist vessels in distress. The great swamps are a peculiar feature of the coast of the Southern States. The most noted is the Great Dismal Swamp of Virginia and North Carolina, seventy-five miles in length by twenty-five miles in width. The soil is saturated with water, and the surface is dotted in many places with lakes and standing pools; but the swamp is for the most part covered with a dense growth of cypress, juniper, gum, and cedar trees. Among other extensive morasses are Alligator Swamp of North Carolina, Okefinokee Swamp of Georgia, and the Everglades of Florida. The last-named is an immense grassy swamp overgrown with cypress and water-oaks.

Southern Products.—The cultivation of tobacco, a plant indigenous to America, first began in Virginia about 1616, soon after the planting of the first English settlement at Jamestown. In the early days, tobacco was not only the principal article of export from Virginia, but was the chief currency of the colony. Cotton began to be largely cultivated in the Southern States at the commencement of the present century. The rapid growth in the culture of this plant was largely owing to the

invention of the cotton-gin by Eli Whitney, and the invention of new machinery for the manufacture of cotton into cloth. The demand for hands to cultivate and pick cotton on the great plantations was the principal cause of the extension of slavery, which was abolished during the war of secession.

Rice is not a grain indigenous to this country. Its culture in the South began about the close of the seventeenth century. The captain of a ship from Madagascar brought a bag of seed-rice to Charleston, and gave it to the governor, who distributed it among his friends. They planted the seed; it increased greatly, and so rice became a main staple of South Carolina.

North Carolina, Georgia, and Florida have in their forests an important source of wealth. From the yellow pitch-pine are obtained turpentine, tar, and pitch,—articles so important in the arts and manufactures. Turpentine is the sap or juice of the pine-tree, and tar is obtained by the combustion of pine billets; pitch is the result of boiling down tar; and rosin, of distilling turpentine. Many of the pines are very tall and straight, and these are greatly valued for masts and spars; while the live-oak, the hardest and most durable of woods, furnishes the finest material for ship-building.

Last of all to be mentioned is that useful article, the sponge. Sponges were long regarded as plants; but naturalists now agree that they belong to the animal kingdom. The sponge is found in great quantities, and of an excellent quality, off the coast of Florida; and the sponge fisheries are a large and growing branch of industry in that part of the country.

SOUTHERN STATES: WESTERN DIVISION.

QUESTIONS ON THE MAP.

I. QUESTIONS BY STATES.

The Section.—What three states and one territory in this section? What natural boundaries on the east? On the south? Arkansas.—What natural boundary has Arkansas on the east? What ridge of the Ozark Mountains extends into the state? What mountains south of Pea Ridge? What river crosses the center of the state? Of what is it a tributary? What other large tributary of the Mississippi crosses the south-western part? What is the capital? On what river are most of the cities or towns? Name them. What places are on the Mississippi River?

Louisiana.—What three natural boundaries has Louisiana on the east? What natural boundary on the south? What river crosses the state? Where does it rise? Of what is it a tributary? What boundary river on the west? What four

lakes in Louisiana? What sound east? What bay south? What is the capital? What city on the Mississippi north-west of New Orleans? What city on Red River?

Indian Territory.—What river crosses Indian Territory? Name its principal tributaries in this territory. What Indian tribe is located in the northern part of the territory? What is the chief town of the territory?

Texas.—What natural boundary has Texas on the south-east? What are the two principal bays? What natural boundary on the south-west? What country borders Texas on the south-west? What mountains in the western part? What plain in the western part? What seven large rivers between the Sabine and the Rio Grande? In which half of the state are all the cities and towns? What city is the capital? What is the principal seaport? What city north-west of Galveston? West of Galveston? In the northern part of the state? Opposite Matamoros?

II. REVIEW QUESTIONS.

States.—How bounded? What is the capital?

Arkansas? Louisiana? Indian Territory? Texas?

Days and Sounds.—Where is it?

Isle au Breton? Atchafalaya? Galveston? Matagorda?

Mountains.—Where are they?

Guadalupe? Pea Ridge? Boston?

Rivers.—Where does it rise? In what direction, through what states, and into what body of water, does it flow?

Arkansas? Red? Sabine? Trinity? Brazos? Colorado? Rio Grande?

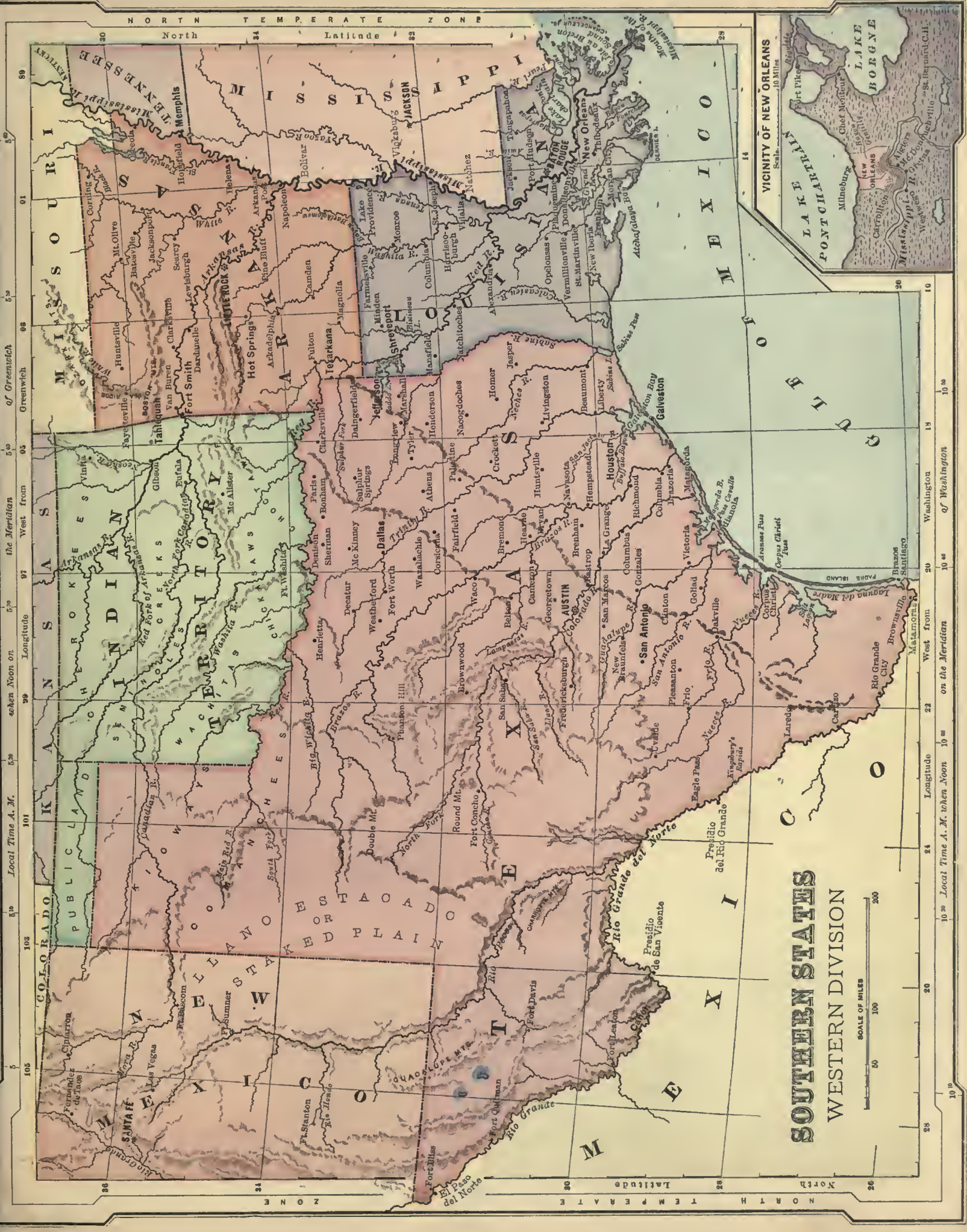
Lakes.—Where situated?

Caddo? Pontchartrain? Borgne? Grand?

Cities.—In what part of what state is it? How situated?

Little Rock? New Orleans? Tablequah? Austin? Fort

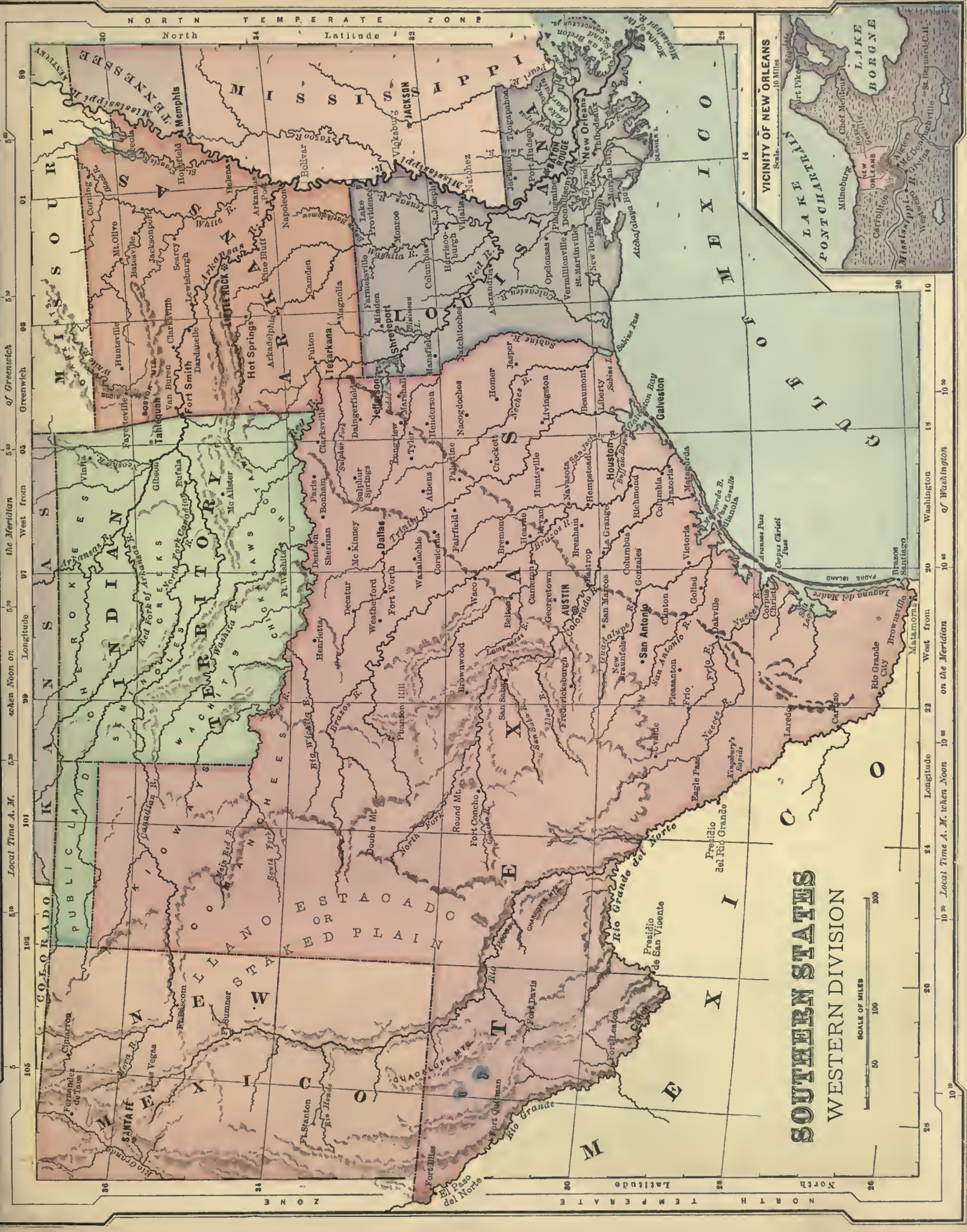
Smith? Baton Rouge? Galveston? Shreveport? Houston? Brownsville?



SOUTHERN STATES WESTERN DIVISION

SCALE OF MILES
0 50 100 200

VICINITY OF NEW ORLEANS
Scale 10 Miles



II.

GENERAL DESCRIPTION.



SUGAR-PLANTATION.

1. **Area.**—This section, which includes Louisiana, Arkansas, Texas, and

Indian Territory, has an area more than double that of the New England and the Middle States.

2. **Surface.**—The south-eastern portion is in the low plain of the Mississippi Valley, whence the surface rises westward into the Plains, which occupy a large part of this section.

Along the coast are extensive swamps and marshes. North-western Texas is a table-land, rising to a height of 4,000 feet, and forming the eastern base of the Rocky Mountains, some outlying ridges of which extend into this state.

3. **Drainage.**—The Mississippi and its tributaries form the principal drainage of the eastern portion. Most of the rivers of Texas rise in the western plateau, and flow south-east into the Gulf of Mexico.

The southern part of Louisiana is almost on the river-level, and is liable to inundation in the spring, when the Mississippi is swollen. To confine it within its banks, *levees*, which are broad walls of earth, have been constructed.

4. **Climate.**—The climate of this section is warm, and along the gulf-coast semi-tropical. The eastern part has abundant rains; the western part is nearly rainless.

5. **Occupations.**—The principal occupation is agriculture, the chief staples being corn, cotton, sugar and tobacco. The broad prairies of Texas are the grazing-grounds of millions of cattle.



LAKE PONTCHARTRAIN.

III.

THE STATES.

REFERENCE TABLE.

STATES.	Area in Sq. Miles in 1880.	Population in 1880.	STATES.	Area in Sq. Miles in 1880.	Population in 1880.
Louisiana . . .	48,720	939,946	Texas	265,780	1,591,749
Arkansas . . .	53,850	802,525	Indian Territory	64,690	76,895

1. **Louisiana** is an important state on account of its valuable staple products, and its commanding commercial position. The principal occupations are agriculture and commerce.

I. The staple products are the sugar-cane, cotton, and rice. The state produces nine-tenths of all the sugar raised in the United States, and great crops of cotton and rice.

II. The commercial facilities of the state arise from its situation at the lower part of the Mississippi Valley, and on the coast of the Gulf of Mexico. This gives it the control both of the foreign and the domestic trade of this rich section.

2. **Chief Cities.**—New Orleans is the largest city in the Gulf States, and the greatest cotton-market in the world. Baton Rouge, the capital, and Shreveport, are next in size.

3. **Arkansas.**—The staple products of this state are cotton and corn. Stock-raising is extensive, and the mineral wealth is great.

4. **Cities.**—Little Rock is the capital and largest city. Other important places are Fort Smith, Pine Bluff, and Hot Springs.



CATTLE RANCHING IN TEXAS.

5. **Texas.**—Texas, the largest state in the Union, is engaged in stock-raising and agriculture. The chief staples are corn, cotton, cattle, and wool.

6. **Chief Cities.**—Galveston, the largest city, has an extensive cotton-trade, and is the port through which nearly all the exports and imports of the state pass. Houston is a flourishing city and important railroad center, with a large internal trade. Austin is the capital.

7. **Indian Territory.**—Indian Territory is a section of country set apart by the government of the United States for the home of various peaceable tribes of Indians. It has no organized government.

8. Tahlequah, the capital of the Cherokee nation, is the chief town of the territory.

SUPPLEMENTARY NOTES.

History.—"Louisiana," in the last century, was the name applied to an extensive territory including the whole country westward from the Mississippi not occupied by Spain, and northward to the southern boundary of British America,—a vast region then in possession of France. In the year 1803, during the administration of Jefferson, this domain was purchased from France for fifteen millions of dollars. The *State* of Louisiana was organized in 1812, and all the rest of Louisiana took the name of "Missouri."

Arkansas was a portion of the territory of Louisiana. In 1819 it was set off as a distinct territory, and in 1836 it was admitted as a state.

Texas, originally a part of the Spanish American Possessions, became a province of Mexico in 1821. A large American immigration then took place; a few years later the people declared their independence, and in 1836 Texas became an independent republic. Subsequently, in 1845, Texas, on application, was admitted into the Union.

Indian Territory was originally a part of the Louisiana purchase, and embraced the whole territory of Missouri. It has been reduced to its present limits by the successive formation of states and territories.

Names.—Louisiana was so named after the French king Louis XIV. The state of Arkansas is called after the river of the same name. Texas is called after an Indian tribe of that name. Indian Territory is so called because tribes of Indians are settled there.

Texas.—From its size alone Texas is noteworthy above all the other states of the Union. It extends through more than ten degrees of latitude, and twelve degrees of longitude, exceeding in area either France or the German Empire. In fact, both as regards extent of territory and abundance and variety of resources, Texas is an empire in itself. It has the finest facilities for agriculture, producing all the cereals, together with cotton, sugar, tobacco, indigo, and semi-tropical fruits. It raises more beef-cattle than any other state, having, by the census of 1870, over three million head. Immense stock-ranches, having herds of several thousand cattle and horses, are common in this state. Great attention is given to sheep-raising.

In addition to the interests already developed, Texas has many other resources, and vast capabilities of future growth. There is an abundance of most valuable timber, and great deposits of coal, iron, salt, and other useful minerals. These attractions draw a superior class of emigrants from other states, as also from Germany and other European countries.



NOMADIC INDIANS.

Indian Territory.—Indian Territory is divided into various reservations, the most important of which are (see map, p. 43) those of the Cherokees, Chickasaws, Choctaws, Creeks, Seminoles, and Wachitas. Most of these and the other tribes have at various periods been removed from different parts of the Union to their present locations in Indian Territory. The Indian population (about 60,000) is nearly equally divided between those that are settled on the reservations, or at agencies, and nomadic tribes. It has been the aim of the United States to settle the various tribes upon separate reservations, where they may be free from the encroachments of the whites, and under the general superintendence and protection of the government. Agents are appointed by the President to represent the United States; but each tribe has its own internal government. Several of the tribes, as the Cherokees, Choctaws, and Creeks, have made considerable progress in civilization: they till the soil, raise cattle and horses, have schools, and have also books and

newspapers printed in their own language.

The American Bison.—The American bison, commonly but wrongly called the buffalo, ranges from northern Texas and Indian Territory northward through Kansas, Nebraska, and Dakota. These animals migrate from north to south, and from south to north, according to the season. When traveling, they move in vast, solid columns of thousands and tens of thousands. Many tribes of Indians are almost entirely dependent on the bison for food, clothing, and dwellings. The use of the dressed hides of the bison as robes has caused a prodigious slaughter of these animals, so that they are rapidly diminishing in number. Originally they ranged over nearly the whole of North America; but they are now confined to The Plains.



HERDS OF BISON.

CENTRAL STATES: EASTERN DIVISION.



VIEW OF CHICAGO.

QUESTIONS ON THE MAP.

I. QUESTIONS BY STATES.

The Section.—How many and what states in this section? What natural boundary has this section on the north? On the south? On the west? What country north-east of this section? *Ans.* The Dominion of Canada. Through how many degrees of latitude and longitude do the states comprising this section extend? What is the greatest length of this section? (Measure on the scale of miles.) When it is noon at Washington, what time is it at Cincinnati and Lansing? At Chicago? At St. Paul? Name eight cities near the fortieth parallel. Which of the Great Lakes is wholly within this section? What mountains in the north-western part? To what systems do all the rivers of this section belong? *Ans.* To the Mississippi and the St. Lawrence basin systems.

Michigan.—Between what lakes is the upper peninsula of Michigan situated? The lower peninsula? What large island in Lake Superior belongs to Michigan? What bay in Lake Superior? What river connects Lake Superior with Lake Huron? What strait connects Lake Michigan with Lake Huron? What two bays in Lake Michigan? In Lake Huron? By what bodies of water is Lake Huron connected with Lake Erie? What mountain-range in the upper peninsula? What rocks? What five rivers flow into Lake Michigan? What two into Lake Huron? Which city is the capital? What two cities on Saginaw River? What city on Grand River? On Detroit River? What two important places west of Detroit?

Ohio.—What natural boundary has Ohio on the north? On the south? On which of the Middle States, and on which of the Southern States, does Ohio border? What state on the west? On the north? Which part of the state is hilly? Into what body of water do the streams in the northern part flow? What are the principal tributaries of the Ohio in this state? Which city is the capital? On what meridian is it? What large place is nearly on the same meridian? What three large cities on Lake Erie? What two cities west of Columbus? What large city in the south-west? What place at the confluence of the Ohio and Muskingum Rivers possesses peculiar historical interest? (See Supplementary Notes, p. 49.)

Indiana.—What natural boundary has Indiana on the north? On the south? What river crosses the state? Of what is it a tributary? What are the principal branches of the Wabash? By what artificial means are the waters of Lake Erie connected with the Mississippi River system?

Which city is the capital? What is the most important city in the north-eastern part of the state? What two cities on the Wabash? What two on the Ohio?

Illinois.—What natural boundary has Illinois on the north-east? On the south? On the west? What partial natural boundary on the east? What five states border on Illinois? How many miles of coast on Lake Michigan has this state? (Measure on the scale of miles.) What are the three principal tributaries of the Mississippi in this state? What water connection is there between Lake Michigan and the Mississippi? What are the principal branches of the Wabash in this state? Which city is the capital? What great city on Lake Michigan? What city south-west of Chicago? What is the largest place in the north-central part of the state? What city on the Illinois River? What city north-west of Peoria? What city south-east of Peoria? What city at the confluence of the Ohio and Mississippi rivers?

Wisconsin.—What natural boundary has Wisconsin on the north-west? On the east? The west? What islands in Lake Superior belong to Wisconsin? What mountains in the northern part? What bay in the eastern part? What large lakes in the eastern part? What are the three principal tributaries of the Mississippi River in this state? Which city is the capital? What city south-east of Madison? What cities on Lake Michigan? On Winnebago Lake? What city on the Mississippi?

II. REVIEW QUESTIONS.

States.—How bounded? What is the capital?

Michigan? Ohio? Indiana? Illinois? Wisconsin?

Bays.—Where is it?

Keweenaw? Whitefish? Thunder? Saginaw? Green?

Rivers.—Where does it rise? In what direction, through what states, and into what body of water, does it flow?

Muskegon? Maumee? Scioto? Great Miami? Wabash? Illinois? Rock? Wisconsin?

Lakes.—Where situated? By what drained?

St. Clair? Horicon? Winnebago? Peoria?

Cities.—In what part of what state? How situated?

Lansing? Columbus? Indianapolis? Springfield? Madison? Detroit? Cincinnati? Chicago? Milwaukee? Grand Rapids? Cleveland? Evansville? Quincy? Racine?



CENTRAL STATES EASTERN DIVISION

SCALE OF MILES
10 20 30 40 50 100



II. DESCRIPTION.



STREET SCENE IN CINCINNATI.

1. **Situation.** — This group of states is situated north of the Ohio River, and east of the Mississippi. It lies wholly in the Central Plain, or Mississippi Valley.

2. **Surface.** — The surface is generally level or rolling prairie-land; but there are two hilly regions, — the one towards the Ohio, the other towards Lake Superior.

The larger part of Ohio consists of a low and broken table-land, forming the western slope and foot-hills of the Appalachian system. The highlands of northern Wisconsin, and the upper peninsula of Michigan, are an extension of the Height of Land. Wisconsin and Michigan possess extensive white-pine forests.

3. **Drainage.** — The rivers in these states belong to the Mississippi and St. Lawrence systems. Four of the five Great Lakes, namely, Erie, Huron, Michigan, and Superior, lie in the northern part of this section.

Lake Superior is six hundred feet above the sea-level, and nine hundred feet deep; it has an area of thirty-two thousand square miles, being large enough to take in the whole of the state of Maine or the island of Ireland. Lake Michigan, about fifty feet lower than Lake Superior, is three-fourths as large, and not quite so deep. Lake Huron is two-thirds as large as Lake Superior, and nearly twice as deep. Lake Erie is one-third as large as Lake Superior, and is very shallow, being less than one hundred feet deep.

4. **Climate.** — The climate is similar to that of the Atlantic States in the same latitude, — the summers are hot, the winters mild in the southern, and cold in the northern part.

5. **Productions and Pursuits.** — The leading pursuits are agriculture and grazing; but manufacturing, mining, and commerce are all great and important industries.

Agriculture. — The broad and fertile prairies are admirably adapted both for tillage and grazing. Of wheat, corn, wool, and live-stock, the quantity produced is greater than in any other part of our country of equal extent.

Manufacturing. — Manufacturing, though in importance secondary to agriculture, is pursued on a great and growing scale. The principal articles produced are flour, agricultural implements, machinery, and cotton and woolen goods.

Mining. — Coal is very widely distributed throughout this section, and in inexhaustible quantities. There are valuable iron ores in Ohio and Michigan. The salt deposits of Michigan are of unsurpassed richness; lead is mined in north-western Illinois and southern Wisconsin; and the Lake Superior copper-mines are the richest in the world.

Commerce. — The means of communication afforded by nature are the numerous large navigable streams, especially the Mississippi and its tributaries, which flow into the Gulf of Mexico and the Great Lakes, which, with the St. Lawrence, give communication with the Atlantic Ocean. These splendid natural commercial facilities are further increased by a network of railroads built by the enterprise of the Western people. The principal exports are wheat, flour, corn, pork, bacon, beef, cheese, wool, and copper.

III. THE STATES.

REFERENCE TABLE.

STATES.	Area in Sq. Miles in 1880.	Population in 1880.	STATES.	Area in Sq. Miles in 1880.	Population in 1880.
Ohio	41,060	3,198,062	Wisconsin . . .	56,040	1,315,497
Indiana	36,350	1,978,301	Michigan . . .	58,915	1,636,937
Illinois	56,650	3,077,871			

1. **Ohio** is one of the wealthiest and most progressive of the Central States, and, in the amount and variety of its manufactures, is the first state west of the Alleghanies.

2. **Chief Cities.** — Cincinnati the metropolis, and the largest city of the Ohio Valley, is a great manufacturing and commercial point. Cleveland, Sandusky, and Toledo, all lake ports, are important manufacturing and commercial centers. Columbus is the capital.

3. **Indiana.** — The natural advantages of Indiana consist in its fertile soil, its extensive deposits of coal and iron, and the facilities for communication afforded by its rivers. The prosperity of the state is based on its agricultural, mining, and manufacturing interests.



INDIANA SCENES.



WISCONSIN SCENES.

4. **Chief Cities.**—Indianapolis, the capital and largest city, is the center of numerous railroads, and is an active manufacturing and commercial point. Evansville, Fort Wayne, and Terre Haute, rank next in population, and are important manufacturing and trading cities.

5. **Illinois.**—Illinois is one of the most populous and wealthy of the Central States, leading all others in the value of its agricultural productions, and commanding the trade both of the Mississippi River and of the Great Lakes.

6. **Chief Cities.**—Chicago is the commercial metropolis, and the largest city on the northern lakes. It has an extensive lake commerce, is the center of the railroad system of the surrounding states, and ranks as the greatest wheat, corn, and live-stock market in the Union.

In commercial importance Chicago ranks next to New York. More than 10,000 miles of railroad are directly tributary to Chicago, and 350 trains enter and leave daily, giving 700 arrivals and departures. Its commerce exceeds \$500,000,000 annually. It is the greatest grain-market in the world. The grain is received and shipped in bulk. It is lifted into elevators from railroad-cars by buckets running on an endless chain, and operated by powerful steam-machinery, and is emptied through spouts into the holds of vessels. There are twenty-four of these immense elevator-warehouses, the total capacity of all being over 20,000,000 bushels.



UNIVERSITY OF MICHIGAN AND PICTURED ROCKS.

Among other important cities are Quincy, Peoria, and Bloomington. Springfield is the capital.

7. **Wisconsin.**—Extensive forests in the north, rich deposits of lead and iron, a fertile soil, and great facilities for commerce, form the principal natural advantages of this state. The leading industries are agriculture, mining, lumbering, and manufacturing.

8. **Chief Cities.**—Milwaukee is the commercial metropolis. It is a great wheat-market, and one of the most beautiful and flourishing cities of the North-West. Fond du Lac, Oshkosh, and Racine come next in importance. Madison is the capital.

9. **Michigan.**—Michigan consists of two peninsulas. The upper peninsula is rugged, and in parts mountainous, with a generally sterile soil; but it is valuable on account of its rich veins of copper and iron, and its heavy pine-forests. The lower peninsula has a generally level surface, a fine climate, and a fertile soil. The leading industries are lumbering, salt-making, farming, fruit-raising, and manufacturing, in the lower peninsula; and copper and iron mining in the upper peninsula.

10. **Chief Cities.**—Detroit has the best harbor on the Great Lakes, and is engaged in manufacturing and in foreign and domestic commerce. Grand Rapids, and East Saginaw, and Saginaw City, rank next in importance. Lansing is the capital.

SUPPLEMENTARY NOTES.

History.—In 1787 Congress organized the vast uninhabited region north of the Ohio into a territory called the North-west Territory, and decreed that a certain number of states should be formed from it when each should have a population of 60,000.

The first state carved out of the North-west Territory was Ohio, admitted into the Union in 1802. Its first white population consisted of a company of New-England pioneers under the guidance of Gen. Rufus Putnam; and the first settlement was made at Marietta, so named after Marie Antoinette.

Indiana was originally a part of the North-west Territory. When Ohio became a state, all the remainder of the North-west Territory received the name of Indiana Territory; and from a part of this territory the State of Indiana was created in 1816. Illinois was first a part of the North-west Territory, afterwards of Indiana Territory, and was admitted into the

Union in 1818. Wisconsin was penetrated by the early French missionaries, traders, and trappers, over two hundred years ago. The first permanent settlement was made at Green Bay in 1745. Wisconsin was first part of the North-west Territory, then part of Indiana Territory, then of Illinois Territory, and afterwards of Michigan Territory. In 1836 it became a separate territory, and in 1848 was admitted as a state. Michigan was first a part of the North-west Territory, and afterwards of Indiana Territory. In 1805 it became a separate territory, and in 1837 was admitted as a state.

Names.—Ohio was named from the Ohio River, which in the Indian language signifies "river of blood." Indiana is a name formed from the word Indian. Illinois took its name from the Illinois River and tribe of Indians. Wisconsin took its name from the Wisconsin River. Michigan took its name from Lake Michigan.

CENTRAL STATES: WESTERN DIVISION.



VIEW OF ST. LOUIS.

I.

QUESTIONS ON THE MAP.

I. QUESTIONS BY STATES.

The Section. — What five states in this section? What territory? What parallel and what natural boundaries separate it from Canada? What natural boundary on the east? What hills in the western part? What plateau in the north-west? What elevation in the north-east?

Minnesota. — What elevation in the northern part of Minnesota? In what direction do the streams flow from the Height of Land? What lakes on the northern border? Which of the Great Lakes on the eastern border? What two lakes north of the Height of Land? What five lakes south of the Height of Land? What two lakes on the western border? What lake on the eastern border? What lake is the source of the Mississippi? What are the principal tributaries of the Mississippi in or bordering this state? Which city is the capital? What two cities on the Mississippi? What city on Minnesota River? What port near the western extremity of Lake Superior?

Iowa. — What natural boundary has Iowa on the east? On the west? Which part of the state is hilly? What river crosses the state? What other tributaries of the Mississippi in this state? Which city is the capital? On what river are most of the large cities? Name them. What city on the Missouri?

Missouri. — What natural boundary has Missouri on the east? What mountains in the south? What mountains in the south-west? What two mountain summits in the eastern part? What river crosses the state? What is the principal tributary of the Missouri from the south? Which city is the capital? What large city on the Mississippi, near the mouth of the Missouri? What city on the Mississippi north of the Missouri? What city on the Missouri where that river enters the state? What city on the Missouri north of Kansas City?

Kansas. — What parallel is the northern boundary of Kansas? What parallel is the southern boundary? What river crosses the south-western

part of the state? What river north of the Arkansas? Of what river is it a tributary? What are the principal branches of the Kansas River in this state? In what part of the state are most of the cities and towns? What two cities on the Kansas River? Which is the capital? What two cities on the Missouri? What city in the south-eastern part? What city on the Arkansas River?

Nebraska. — What parallels form the southern boundary of Nebraska? What natural boundary on the east? What branch of the Missouri River crosses the northern part? What river crosses the state? Of what river is it a tributary? What city is the capital? What cities on the Missouri River? What city on the Platte River?

Dakota. — What country north of Dakota? What states east? What state south? What territories west? What mountains in the south-western part of the territory? What plateau in the central part? What lakes in the northern part? What Indian tribes have a Reservation in the north-western part? What river crosses the territory? What tributary of the Missouri in the southern part? What is the capital? What place on the Big Sioux River? What United-States forts on Missouri River?

II. REVIEW QUESTIONS.

States. — *How bounded? What is the capital?*

Minnesota? Iowa? Missouri? Kansas? Nebraska? *Dakota Territory?*

Mountains. — *Where are they?*

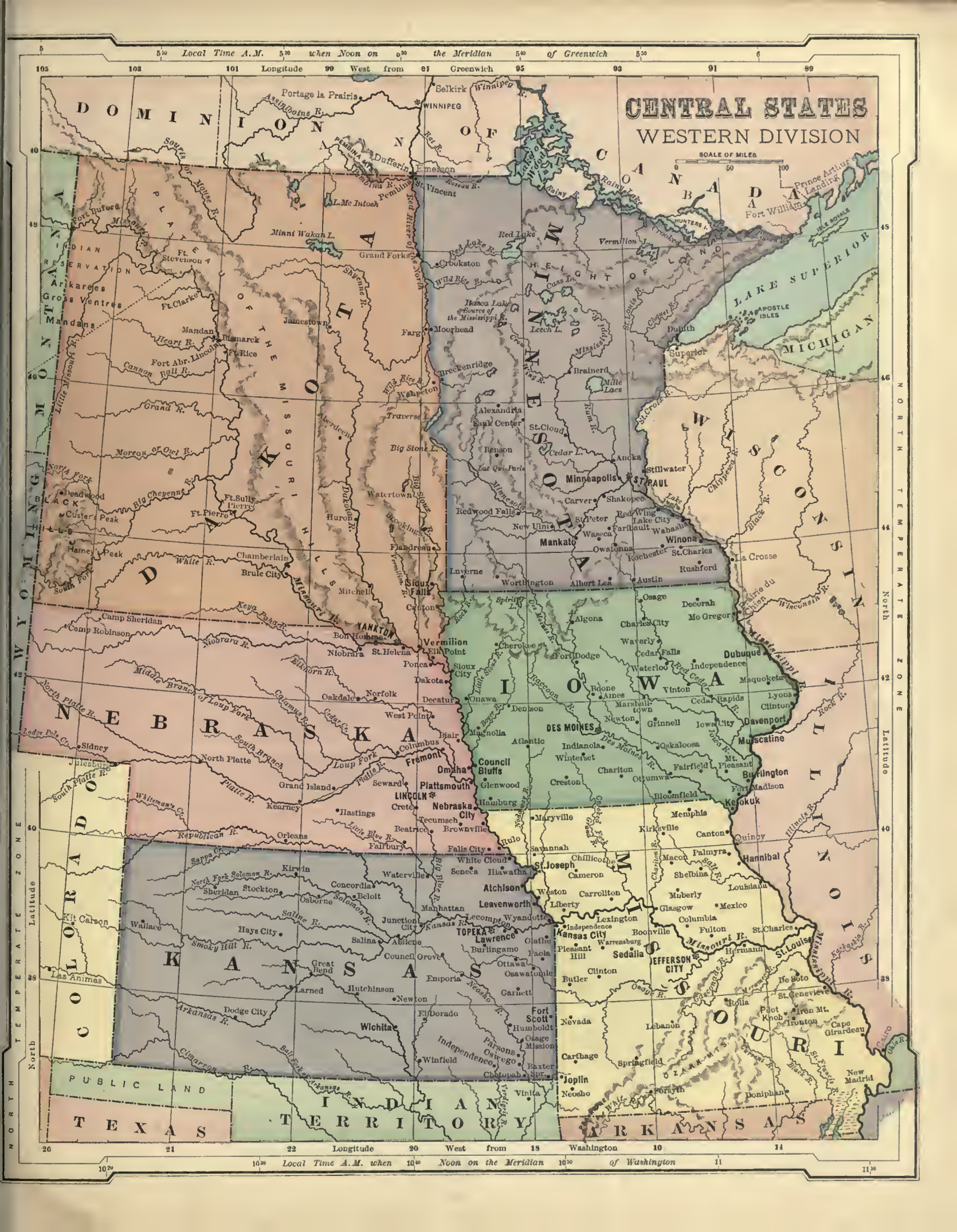
Black Hills? Height of Land? Pilot Knob? Iron? Ozark? Pea Ridge?

Rivers. — *Where does it rise? In what direction, through what states, and into what body of water, does it flow? (See Map of United States.)*

Mississippi? Missouri? Minnesota? Red? Des Moines? Platte? Kansas?

Cities. — *In what part of what state is it? How situated?*

St. Paul? Des Moines? Jefferson City? Topeka? Lincoln? Yankton? Minneapolis? Dubuque? Davenport? St. Louis? Lawrence? Omaha? Sioux Falls?



II.

DESCRIPTION.

1. **Situation.**—This group includes the states of Minnesota, Iowa, Missouri, Kansas, and Nebraska, with Dakota Territory.

The boundary separating this section from the Dominion of Canada is formed by the 49th parallel, the Lake of the Woods, Rainy River, Rainy Lake, Crooked Lake, and Pigeon River.

2. The surface is generally level. The western part is in the Plains; the eastern, in the low plain of the Mississippi, to which the ground falls by a slight slope from the foothills of the Rocky Mountains.

The only considerable elevations are the short ranges and knobs of the Ozark Mountains in Missouri, and the Black Hills of Dakota.

3. **Drainage.**—Most of the rivers of this section are tributaries of the Mississippi.

The Mississippi rises in Lake Itasca in northern Minnesota, on the Height of Land. Issuing from Lake Itasca as a slender rivulet (from ten to twelve feet in width), it receives the waters of various lakes and small streams, and is swelled by the two main tributaries, — the Minnesota and St. Croix. It is navigable for steamboats below the Falls of St. Anthony.

4. **Climate.**—The climate of this region presents great extremes: the summers are warm; the winters exceedingly severe, especially in the northern part.

5. **Productions and Pursuits.**—The principal pursuits are agriculture, stock-raising, and mining.

Agriculture.—The soil of the river-valleys is exceedingly fertile. The staple products are corn, wheat, hay, oats, hemp, and potatoes. Stock-raising is largely carried on.

Mining.—In the number, extent, and value of its mineral deposits, Missouri surpasses every other state. Those most largely mined are iron, lead, and coal. Iowa has inexhaustible fields of bituminous coal, and is rich in lead. Kansas has abundant deposits of coal, iron, and salt. Dakota has very rich and productive gold mines.

Commerce.—These states are crossed by many navigable rivers and by numerous railroads, which connect with trunk lines east of the Mississippi.

III.

THE STATES.

REFERENCE TABLE.

STATES.	Area in Sq. Miles, 1880.	Population in 1880.	STATES.	Area in Sq. Miles, 1880.	Population in 1880.
Minnesota . . .	83,365	780,773	Kansas	82,080	996,096
Iowa	56,025	1,624,615	Nebraska . . .	77,505	452,402
Missouri . . .	69,415	2,168,380	Dakota Territory,	143,450	135,177

1. **Minnesota.**—Minnesota occupies the central part of North America, and includes the Height of Land which divides the Arctic Plain from the valley of the Mississippi. The leading industries are agriculture (the chief products being wheat and oats), lumbering, and manufacturing, the principal articles being sawed lumber and flour.

Minnesota, together with Wisconsin and the upper peninsula of Michigan, forms an extensive undulating table-land, with an average height of about 1,000 feet. In north-western Minnesota the surface reaches a height of 1,700 feet. This elevation, known as the "Height of Land" (the highest region between the Gulf of Mexico and Hudson Bay), forms a watershed which sends out streams to all points of the compass.

2. **Chief Cities.**—St. Paul is the capital. Minneapolis, the largest city, at the Falls of St. Anthony, possesses unlimited water-power, and is noted for the manufacture of flour and lumber.

3. **Iowa.**—Iowa possesses a fertile prairie soil, and rich deposits of coal and lead. Agriculture is the leading industry; but lead and coal mining are extensively carried on.

The coal-field of Iowa embraces an area of several thousand square miles, and is practically inexhaustible. The coal is bituminous and of excellent quality. The lead-mines in the Galena limestone have been worked for many years.

4. **Chief Cities.**—Dubuque and Davenport, Burlington and Keokuk, all on the Mississippi, are important cities. Des Moines is the capital.

5. **Missouri.**—Missouri is the most populous state west of the Mississippi, and has an area nearly equal to that of New England.

Extensive iron-mining is carried on in the section south of St. Louis, and the mining of lead and coal is an important industry. Agriculture is a leading occupation, and great crops of corn, wheat, rye, tobacco, hemp, and grapes are raised in the prairie section. The manufacturing interest is large and increasing.

This state possesses the navigation of the two greatest rivers in the United States. By means of the Mississippi, which forms the entire eastern boundary, the state has water communication with the most northern part of the Union; by means of the Missouri River internal communication is extended to the Rocky Mountains. These two great channels are the final reservoirs of all the streams of the state.

6. **Chief Cities.**—St. Louis, the largest city west of the Mississippi River, occupies a commanding position for domestic and foreign commerce, and is largely engaged in iron-manufactures. A magnificent steel bridge crosses the Mississippi River at this point. Kansas City and St. Joseph are the places next in importance. Jefferson City is the capital.



FARMING IN THE GREAT WEST.



FALLS OF ST. ANTHONY AND LUMBERING SCENE.

7. **Kansas.**—The natural wealth of Kansas consists of a fertile soil, abundant pasturage for stock, rich deposits of coal, and ready means of communication. The leading industries are agriculture in the eastern section, and stock-raising on the great grassy prairies to the west.

The prairies are covered with a variety of nutritious grasses, which last all winter, drying into hay on the ground, and supporting vast herds of beef-cattle, which require no housing.

8. **Chief Cities.**—Leavenworth is the largest city in Kansas. The places next in importance are Lawrence, and Topeka the capital.

9. **Nebraska** resembles Kansas in its natural wealth, and in the occupations of the people.

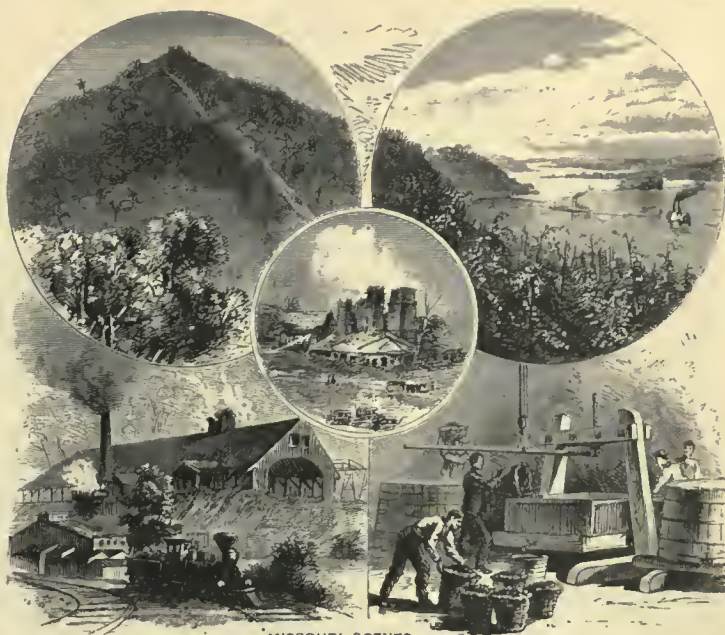
The raising of corn, wheat, and other cereals, and fruit-growing, are carried on with great success in the eastern section; beef-cattle and other live-stock are raised in great numbers in the western grazing regions. Its cheap and fertile lands, together with the ready means of communication, are rapidly making Nebraska a great and populous state.

10. **Chief Cities.**—Omaha is the largest city. Lincoln is the capital.

11. **Dakota.**—Agriculture, stock-raising, and mining are the chief occupations of the people of Dakota Territory.

This territory is the home of the Sioux, or Dakota, and the Mandan tribes of Indians. Vast herds of buffalo, elk, deer, and antelope range over the western portion. The "Bad Lands" are an extensive arid tract in the southwest. But the river bottoms are exceedingly fertile, and the farm represented on the previous page is in Dakota.

12. **Capital.**—Yankton is the capital and largest place.



MISSOURI SCENES.

SUPPLEMENTARY NOTES:

History.—Minnesota was first explored by the Jesuit missionaries two hundred years ago, and was a part of the great Louisiana purchase. It was organized as a territory in 1849, and became a state in 1858.

Iowa was originally a part of the Louisiana purchase. It was organized as a separate territory in 1838, and admitted as a state in 1846.

Missouri was originally a part of the Louisiana purchase, and, when the present state of Louisiana was admitted, the remainder of the extensive domain was erected into the territory of Missouri. The state was formed from a part of this territory, and was admitted into the Union in 1820.

Kansas was originally a part of the Louisiana purchase. It first came prominently into notice in 1854, when a law was passed organizing the Kansas-Nebraska Territory, and leaving to "popular sovereignty" the question whether it should be a free or a slave state. The friends of both sides poured into this territory, and for several years its soil was the scene of lawlessness and bloodshed; but the antislavery party triumphed, and Kansas was admitted as a free state, January 30, 1861.

Nebraska, originally a part of the Louisiana purchase, was, jointly with Kansas, organized into a territory in 1854. When Kansas became a state in 1861 Nebraska remained for some years a territory, but finally was admitted into the Union in 1867.

Dakota, originally a part of the Louisiana purchase, became a part of Minnesota Territory, which was organized in 1849. It was organized as a territory in 1861, but it then included the present territories of Montana and Wyoming. The first permanent settlements of whites were made in 1859.

Names.—Minnesota is called after the river of the same name, signifying "cloudy river." Iowa is called after the river of the same name: it is the French form of an Indian word signifying "the sleepy ones," the name of an Indian tribe. Missouri takes its name from its chief river, signifying "muddy water." Kansas, meaning "smoky water," Nebraska, meaning "water valley," and Dakota, signifying "leagued,"—the common name of the confederated Sioux tribes,—are all named from Indian tribes identified with their history.



WINTER TRAVEL ON THE UNION PACIFIC RAILROAD.

PACIFIC STATES AND TERRITORIES.



VIEW OF SAN FRANCISCO.

I.

QUESTIONS ON THE MAP.

I. QUESTIONS BY STATES.

The Section.—What are the states and territories of this section? *Ans.* They are the territories of Montana, Wyoming, and New Mexico, and the state of Colorado, in the Rocky Mountain division; the territories of Idaho, Utah, and Arizona, and the state of Nevada, in the Great Plateau; and the states of California and Oregon, with Washington Territory and Alaska, in the Pacific Coast division.

Montana.—What mountains in the western part of Montana? What river crosses the northern part? What large branch of the Missouri crosses the southern part? What is the capital?

Wyoming.—What park in the north-western part? Name the mountain-ranges. What river in the south-eastern part? What is the capital?

Colorado.—What mountains in Colorado? What four "parks" are in these mountains? What peak in the central part of the state? What great rivers have their source in this state? What city is the capital? What towns south-west of Denver?

New Mexico.—What river crosses New Mexico? What is the capital? What place south-west of Santa Fé?

Idaho.—What natural boundary on the north-east? What tributaries of the Columbia cross the territory? What is the capital?

Nevada.—What mountain-ranges in this state? What lakes? Do any rivers cross it? What is the capital? What place north of Carson City?

Utah.—What mountain-chains in Utah? What large lake? What is the capital? What place north of Salt Lake City?

Arizona.—What two rivers cross Arizona? What is the capital?

California.—What natural boundary has California on the west? What country south? What mountain-chain in the eastern part? What range in the western part? Name three lakes in this state. What noted valley

south of the thirty-eighth parallel? What two large rivers unite, and flow into San Francisco Bay? What strait ("gate") at the entrance of this bay? What city is the capital? What city on the west side of San Francisco Bay? On the east side? What city east of Oakland? South?

Oregon.—What boundary river has Oregon on the north? On the east? What natural boundary on the west? What mountains extend through the state? What is the capital? What city north of Salem?

Washington.—What country on the north? What natural boundary on the west? On the south? What cape projects from the north-western part? What mountain-peaks in this territory? What is the capital?

Alaska.—(See Map of North America.) What ocean north of Alaska? South? Sea west? What circle crosses Alaska? What volcano in Alaska?

II. REVIEW QUESTIONS.

States or Territories.—How bounded? What is the capital?

Montana? Wyoming? Colorado? New Mexico? Idaho? Nevada? Utah? Arizona? California? Oregon? Washington?

Capes.—From what coast does it project?

Point Conception? Mendocino? Flattery?

Mountains.—Where are they?

Rocky? Sierra Nevada? Coast? Cascade? Wahsatch? Uintah? Mount Whitney? Mount Hood? Rainier?

Rivers.—Where does it rise? In what direction, through what states or territories, does it flow?

Columbia? Missouri? Yellowstone? Rio Grande? Colorado? Gila? Sacramento? San Joaquin? Klamath?

Lakes.—Where situated?

Great Salt? Tulare? Pyramid? Tahoe?

Cities.—In what part of what state is it? How situated?

Helena? Cheyenne? Denver? Santa Fé? Boise City? Carson City? Salt Lake City? Prescott? Sacramento? Salem? Olympia? Virginia City (Montana)? Albuquerque? Idaho City? Virginia City (Nevada)? Ogden? Tucson? San Francisco? Oakland? Portland?





GEYSERS AND FIRE-BASINS IN THE ROCKY MOUNTAINS.

II.

ROCKY MOUNTAINS AND GREAT PLATEAU.—DESCRIPTION.

1. **Situation.**—This group includes the states and territories of the Rocky Mountains and of the Great Plateau.

Colorado and Nevada are states; Montana, Wyoming, New Mexico, Idaho, Utah, and Arizona are territories.

2. **Surface.**—The great natural feature of this region is the Rocky Mountain system, the main axis of which traverses it in a general south-easterly direction. The Rocky Mountains within this section comprise several chains more or less parallel, and connected by numerous cross ranges.

1. Some of the grandest scenery in the world is found in the Rocky Mountains. Among the most remarkable localities are the mountain scenery and “parks” of Colorado, the Fire Hole Basin, and the Cañon of the Yellowstone. The Fire Hole Basin is in the valley of the Madison River, one of the head streams of the Missouri. It contains many hundreds of boiling springs and spouting geysers, far exceeding those of Iceland in size and grandeur. The Grand Geyser, the most magnificent in the world, throws a stream of hot water to a height of 300 feet. The Cañon of the Yellowstone is a great mountain-rent, with perpendicular basaltic walls from 1,000 to 2,000 feet high. For a distance of twenty-five miles along this mighty chasm the river rushes with fearful velocity, making in one place a leap of 450 feet, forming one of the grandest of waterfalls. The rocks in many places along the cañon are worn into fantastic shapes, resembling ruined castles with minarets and spires.
- II. A section of this magnificent mountain-region, nearly the size of Connecticut, has been set apart by Congress as a great “National Park.” Within its limits are not less than ten thousand boiling springs and geysers, and many grand waterfalls, deep cañons, beautiful lakes, and rugged mountain-peaks.

3. **Climate.**—This section has a cool climate, owing to its elevation above the level of the sea. It is also noted for its dryness. This is due to its great distance from the ocean, the

rain-clouds from which are deprived of their moisture by the intervening mountains.

4. **Industries.**—This section is rich in mines of gold, silver, copper, lead, and coal, and the vast grassy plains afford fine pasturage: hence mining and stock-raising form the leading industries of the inhabitants.

III.

THE STATES AND TERRITORIES.

REFERENCE TABLE.

ROCKY MOUNTAIN DIVISION.			GREAT PLATEAU DIVISION.		
STATES OR TERRITORIES.	Area in Sq. Miles in 1880.	Population in 1880.	STATES OR TERRITORIES.	Area in Sq. Miles in 1880.	Population in 1880.
<i>Montana Ter.</i>	146,080	39,159	<i>Idaho Territory.</i>	84,800	32,610
<i>Wyoming Ter.</i>	97,890	20,789	<i>Nevada</i>	110,700	62,266
<i>Colorado . . .</i>	103,925	194,327	<i>Utah Territory .</i>	84,970	143,963
<i>New Mexico Ter.</i>	122,580	119,565	<i>Arizona Ter. . .</i>	113,020	40,440

5. **Montana.**—The gold and silver mines of Montana are extensively worked, and the mountain pastures afford great advantages for stock-raising.

6. **Chief Places.**—Helena is the capital and largest town. Virginia City is next in importance.

7. **Wyoming.**—The principal industries of this territory are stock-raising and the mining of coal and gold.

8. **Chief Places.**—Cheyenne, the capital, is an important railroad center, and a distributing point for goods to all parts of the highland region north and south. Sherman Station (8,000 feet) is the highest point in the Rocky Mountains crossed by the Pacific Railroad.

9. **Colorado** is divided by the Rocky Mountains into the



GREAT SALT LAKE.

eastern section, which resembles Kansas, and the western section, which is a mountain-plateau region.

The leading industries are gold and silver mining, largely carried on in the mountains, and grazing and agriculture in the eastern section.

10. **Chief Places.**—Denver is the capital and largest city. The many important railroad lines centering here make it the metropolis of an extensive region of country. Leadville ranks next in population.

11. **New Mexico** has rich mines, which are being rapidly opened and developed. Stock raising is also extensively carried on in the valleys. Santa Fé was first visited by the Spaniards about 1542, at which time it was an important Indian settlement.

12. **Santa Fé** is the capital and largest place.

13. **Idaho** is rich in gold and silver, and has also extensive deposits of salt, coal, and iron.

14. The capital is Boise City.

15. **Nevada.**—Nevada is noted for its silver-mines, which for a number of years yielded more than one-half of all the silver annually produced in the United States.

16. **Chief Places.**—Virginia City, famous for its rich silver-mines, is the largest place. Carson City is the capital.

17. **Utah**, remarkable as the home of the Mormons, is rich in silver-mines, which are extensively worked. Agriculture is carried on principally by means of irrigation.

18. **Salt Lake City** is the capital and largest city.

19. **Arizona.**—Arizona includes the hottest and driest portion of the United States. The northern part is a high plateau, cut through by the stupendous cañon of the Colorado River.

The Colorado River has worn through the soft strata of sandstone a narrow channel, that in many places is from 2,000 to 3,000 feet deep.

The passage through this deep and gloomy cañon is exceedingly dangerous.

This territory is rich in mines of silver, copper, and other minerals, which are being extensively developed. The Apaches, a hostile Indian tribe, have until recently kept every thing in a backward state.

20. The capital is Prescott.

IV.

PACIFIC COAST DIVISION.—DESCRIPTION.

1. **Situation.**—This group includes the States of California and Oregon, with Washington Territory and Alaska.

2. **Seacoast.**—Exclusive of Alaska, this section has a coast line of about one thousand miles. Good harbors, however, are not numerous.

3. **Surface.**—The lofty chain of the Sierra Nevada extends through California into Oregon and Washington, where it is called the Cascade Range. The Coast Range is a series of low chains near the Pacific coast.

4. The climate of the Pacific Coast is unlike that of any other part of the United States. In California and Oregon it is mild and equable throughout the year; but it presents great extremes of moisture, the rains being confined to the period from November to April, and no rain falling during the other months.

V.

THE STATES AND TERRITORIES.

REFERENCE TABLE.

STATES OR TERRITORIES.	Area in Square Miles in 1880.	Population in 1880.
California	158,360	864,694
Oregon	96,030	174,768
Washington Territory . .	69,180	75,116
Alaska Territory	531,409	33,426

1. **California** ranks as the wealthiest and most populous of the Pacific States. It is, next to Texas, the largest state in the Union.

2. **Physical Features.**—This state may be divided into four sections: (1) the mountain-region of the Sierra Nevada, (2) the desert plateau-region east of that range, (3) the fertile valley-region between the Sierra Nevada and the Coast Range moun-



tains, and (4) the narrow coast-belt bordering on the Pacific Ocean.

California is famed for its grand and striking natural features. Among these are the Yosemite Valley and Falls, the Big-Tree Groves, Lake Tahoe, and the Geysers.

3. In natural wealth this state is highly favored. It is rich in gold, quicksilver, coal, and other minerals. Its fertile soil and favorable climate adapt it to the production of the grains and fruits both of the temperate and semi-tropical climates. Its situation on the Pacific Ocean gives it command of the trade with the Orient.

4. The chief industries are agriculture, stock-raising, mining, and manufacturing. California is the leading state in the export of wheat, gold, quicksilver, wool, and wine. The orange, lemon, fig, olive, and almond are cultivated in the central and the southern parts.

5. Chief Cities.—San Francisco is the commercial emporium of the whole western coast of North America, and has a large trade with China, Japan, India, Australia, the Sandwich Islands, and other

islands of the Pacific. Oakland ranks next in population. Sacramento is the capital.

6. Oregon is as large as New York and Pennsylvania, but is thinly populated. The leading industries are agriculture, to which the fertile river-valleys are finely adapted; stock-raising, which is largely engaged in; and cutting timber from the immense pine-forests that cover the western slopes of the Cascade Mountains. The salmon-fisheries also are important.

7. Chief Cities.—Portland, on the Willamette, is the largest city. Salem is the capital.

8. Washington Territory has a great extent of seacoast, valuable coal-fields, and extensive forests of pine and cedar.

9. The capital is Olympia, on Puget Sound.

10. Alaska. — This great isolated possession (purchased from Russia in 1867) is unorganized, but is governed as a county of Washington Territory.

Its forests, fur-bearing animals, and seal-fisheries constitute the wealth of Alaska; and its small population of Aleuts, half-breeds, and Indians are engaged in hunting and the fisheries.



SUPPLEMENTARY NOTES.

History.—Oregon, Washington, Idaho, and part of Montana belong to the United States by right of exploration and settlement confirmed by treaty with Spain in 1819. Utah, Nevada, and California were included in the territory ceded by Mexico in 1848. Colorado and Wyoming, in their present limits, were partly in the Louisiana purchase, and partly in the cession of 1848. New Mexico and Arizona were partly in the cession of 1848, and

partly in the Gadsden purchase from Mexico in 1853. Montana was organized as a territory in 1864, and Idaho in 1863. Oregon was organized as a territory in 1848, and admitted as a state in 1859. Washington was organized as a territory in 1853, and Utah in 1850. Nevada was admitted as a state in 1864; California, in 1850; and Colorado, in 1876. Wyoming was organized as a territory in 1868; New Mexico, in 1850; and Arizona, in 1863.

REFERENCE TABLE OF POPULATION.

CITIES, TOWNS, VILLAGES, BOROUGHES, ETC., HAVING A POPULATION OF OVER 10,000 BY THE CENSUS OF 1880.

NAME.	POPULATION.	NAME.	POPULATION.	NAME.	POPULATION.	NAME.	POPULATION.
Akron, O.	16,512	Eau Claire, Wis.	10,119	Marlborough, Mass.	10,126	Rochester, N.Y.	89,366
Albany, N.Y.	90,758	Elizabeth, N.J.	28,229	Memphis, Tenn.	33,592	Rockford, Ill.	13,129
Alexandria, Va.	13,659	Eimira, N.Y.	20,541	Meriden, Conn.	15,540	Rock Island, Ill.	11,659
Allegheny, Penn.	78,682	Erie, Penn.	27,737	Middletown, Conn.	11,732	Rome, N.Y.	12,194
Allentown, Penn.	18,063	Evansville, Ind.	29,280	Milwaukee, Wis.	115,587		
Altoona, Penn.	19,710			Minneapolis, Minn.	46,887	Sacramento, Cal.	21,420
Atchison, Kan.	15,105	Fall River, Mass.	48,961	Mobile, Ala.	29,132	Saginaw, Mich.	10,525
Atlanta, Ga.	37,409	Fitchburg, Mass.	12,429	Montgomery, Ala.	16,713	Salem, Mass.	27,563
Attleborough, Mass.	11,111	Fond-du-Lac, Wis.	13,094	Muskegon, Mich.	11,262	Salt Lake City, Utah	20,768
Auburn, N.Y.	21,924	Fort Wayne, Ind.	26,880			San Antonio, Tex.	20,550
Augusta, Ga.	21,891			Nashua, N.H.	13,397	Sandusky, O.	15,838
Aurora, Ill.	11,873	Galesburg, Ill.	11,437	Nashville, Tenn.	43,350	San Francisco, Cal.	233,959
Austin, Tex.	10,960	Galveston, Tex.	22,248	New Albany, Ind.	16,423	San José, Cal.	12,567
		Georgetown, D.C.	12,578	Newark, N.J.	136,508	Savannah, Ga.	30,709
Baltimore, Md.	332,313	Gloucester, Mass.	19,329	New Bedford, Mass.	26,845	Schenectady, N.Y.	13,655
Bangor, Me.	16,856	Grand Rapids, Mich.	32,016	New Brighton, N.Y.	12,679	Scranton, Penn.	45,850
Bay City, Mich.	20,693			New Britain, Conn.	11,800	Shenandoah, Penn.	10,147
Belleville, Ill.	10,683	Hamilton, O.	12,122	New Brunswick, N.J.	17,166	Somerville, Mass.	24,933
Biddeford, Me.	12,651	Hannibal, Mo.	11,074	Newburg, N.Y.	18,049	South Bend, Ind.	13,280
Binghamton, N.Y.	17,317	Harrisburg, Penn.	30,762	Newburyport, Mass.	13,538	Springfield, Ill.	19,743
Bloomington, Ill.	17,180	Hartford, Conn.	42,015	New Haven, Conn.	62,882	Springfield, Mass.	33,340
Boston, Mass.	362,839	Haverhill, Mass.	18,472	New London, Conn.	10,537	Springfield, O.	20,730
Bridgeport, Conn.	27,643	Hoboken, N.J.	30,999	New Orleans, La.	216,090	Stamford, Conn.	11,209
Brockton, Mass.	13,668	Holyoke, Mass.	21,915	Newport, Ky.	20,433	Steubenville, O.	12,093
Brooklyn, N.Y.	566,663	Houston, Tex.	16,513	Newport, R.I.	15,693	St. Joseph, Mo.	32,431
Buffalo, N.Y.	155,134	Hyde Park, Ill.	15,716	Newton, Mass.	16,995	St. Louis, Mo.	359,518
Burlington, Io.	19,450			New York, N.Y.	1,206,299	St. Paul, Minn.	41,473
Burlington, Vt.	11,364	Indianapolis, Ind.	75,056	Norfolk, Va.	21,966	Stockton, Cal.	10,282
				Norristown, Penn.	13,063	Syracuse, N.Y.	51,792
Cambridge, Mass.	52,669	Jackson, Mich.	16,105	North Adams, Mass.	10,192		
Camden, N.J.	41,659	Jacksonville, Ill.	10,927	Northampton, Mass.	12,172	Taunton, Mass.	21,213
Canton, O.	12,258	Jersey City, N.J.	120,722	Norwalk, Conn.	13,956	Terre Haute, Ind.	26,042
Cedar Rapids, Io.	10,104	Joliet, Ill.	16,145	Norwich, Conn.	15,112	Toledo, O.	50,137
Charleston, S.C.	49,984					Topeka, Kan.	15,452
Chattanooga, Tenn.	12,892	Kalamazoo, Mich.	11,937	Oakland, Cal.	34,555	Trenton, N.J.	29,910
Chelsea, Mass.	21,782	Kansas City, Mo.	55,785	Ogdensburg, N.Y.	10,341	Troy, N.Y.	56,747
Chester, Penn.	14,997	Keokuk, Io.	12,117	Omaha, Neb.	30,518		
Chicago, Ill.	503,185	Kingston, N.Y.	18,344	Orange, N.J.	13,207	Utica, N.Y.	33,914
Chicopee, Mass.	11,325			Oshkosh, Wis.	15,748		
Chillicothe, O.	10,938	La Crosse, Wis.	14,595	Oswego, N.Y.	21,116		
Cincinnati, O.	255,139	Lafayette, Ind.	14,860			Vicksburg, Miss.	11,814
Cleveland, O.	160,146	Lancaster, Penn.	25,769	Paterson, N.J.	51,031	Virginia City, Nev.	10,917
Cohoes, N.Y.	19,416	Lawrence, Mass.	39,151	Pawtucket, R.I.	19,030		
Columbia, S.C.	10,036	Leadville, Col.	14,820	Peoria, Ill.	29,259	Waltham, Mass.	11,711
Columbus, O.	51,647	Leavenworth, Kan.	16,546	Petersburg, Va.	21,656	Warwick, R.I.	12,163
Concord, N.H.	13,843	Lewiston, Me.	19,083	Philadelphia, Penn.	847,170	Washington, D.C.	147,293
Council Bluffs, Io.	18,059	Lexington, Ky.	16,656	Pittsburg, Penn.	156,389	Waterbury, Conn.	17,806
Covington, Ky.	29,720	Lincoln, Neb.	13,003	Pittsfield, Mass.	13,367	Watertown, N.Y.	10,697
Cumberland, Md.	10,693	Lincoln, R.I.	13,765	Portland, Me.	33,810	Weymouth, Mass.	10,571
		Little Rock, Ark.	13,138	Portland, Ore.	17,577	Wheeling, W. Va.	30,737
Dallas, Tex.	10,358	Lockport, N.Y.	13,522	Portsmouth, O.	11,321	Wilkesbarre, Penn.	23,339
Danbury, Conn.	11,666	Logansport, Ind.	11,198	Portsmouth, Va.	11,390	Williamsport, Penn.	18,934
Davenport, Io.	21,831	Long Island City, N.Y.	17,129	Pottsville, Penn.	13,253	Wilmington, Del.	42,478
Dayton, O.	38,678	Los Angeles, Cal.	11,183	Poughkeepsie, N.Y.	20,207	Wilmington, N.C.	17,350
Denver, Col.	35,629	Louisville, Ky.	123,758	Providence, R.I.	104,857	Winona, Minn.	10,208
Derby, Conn.	11,650	Lowell, Mass.	59,475			Woburn, Mass.	10,931
Des Moines, Io.	22,408	Lynchburg, Va.	15,959	Quincy, Ill.	27,268	Woonsocket, R.I.	16,053
Detroit, Mich.	116,340	Lynn, Mass.	38,274	Quincy, Mass.	10,529	Worcester, Mass.	58,291
Dover, N.H.	11,687						
Dubuque, Io.	22,254	Macon, Ga.	12,749	Racine, Wis.	16,031	Yonkers, N.Y.	18,892
		Madison, Wis.	10,324	Reading, Penn.	43,278	York, Penn.	13,940
Easton, Penn.	11,924	Malden, Mass.	12,017	Richmond, Ind.	12,742	Youngstown, O.	15,435
East Saginaw, Mich.	19,016	Manchester, N.H.	32,630	Richmond, Va.	63,600	Zanesville, O.	18,113



- PRINCIPAL RAILROADS IN THE UNITED STATES**
1. GRAND TRUNK.
 2. EASTERN.
 3. SHORE LINE.
 4. VERMONT CENTRAL.
 5. BOSTON AND ALBANY.
 6. HUDSON RIVER.
 7. NEW YORK CENTRAL.
 8. NEW YORK, LAKE ERIE, AND WESTERN.
 9. ATLANTIC AND GREAT WESTERN.
 10. PENNSYLVANIA.
 11. BALTIMORE AND OHIO.
 12. PITTSBURGH, FORT WAYNE, AND CHICAGO.
 13. LAKE SHORE AND MICHIGAN SOUTHERN.
 14. MICHIGAN CENTRAL.
 15. CHICAGO AND NORTH-WESTERN.
 16. CHICAGO, ROCK ISLAND, AND PACIFIC.
 17. ST. PAUL, MINNEAPOLIS, AND MANITOBA.
 18. CHICAGO, MILWAUKEE, AND ST. PAUL.
 19. CHICAGO, BURLINGTON, AND QUINCY.
 20. HANNIBAL AND ST. JOSEPH.
 21. CHICAGO AND ALTON.
 22. ILLINOIS CENTRAL (IOWA DIVISION).
 23. WARASH, TOLEDO, AND WESTERN.
 24. OHIO AND MISSISSIPPI.
 25. PITTSBURGH, CINCINNATI, AND ST. LOUIS.
 26. CLEVELAND, COLUMBUS, CINCINNATI AND INDIANAPOLIS.
 27. WASHINGTON CITY, VIRGINIA MIDLAND, AND GREAT SOUTHERN.
 28. RICHMOND, FREDERICKSBURG, AND POTOMAC.
 29. CHESAPEAKE AND OHIO.
 30. RICHMOND AND PETERSBURG.
 31. WELDON AND WILMINGTON.
 32. WILMINGTON, COLUMBIA, AND AUGUSTA.
 33. SOUTH CAROLINA.
 34. GEORGIA.
 35. PIEDMONT AIR LINE.
 36. ATLANTA AND CHARLOTTE AND GREAT SOUTHERN.
 37. CENTRAL RAILROAD OF GEORGIA.
 38. WESTERN AND ATLANTIC.
 39. EAST TENNESSEE, VIRGINIA, AND GREAT SOUTHERN.
 40. ATLANTIC, MISSISSIPPI, AND GULF.
 41. CINCINNATI SOUTHERN.
 42. ATLANTIC AND GULF.
 43. WESTERN RAILROAD OF ALABAMA AND WEST POINT.
 44. LOUISVILLE AND GREAT SOUTHERN.
 45. MEMPHIS AND CHARLESTON.
 46. MOBILE AND OHIO.
 47. CHICAGO, ST. LOUIS AND NEW ORLEANS.
 48. ST. LOUIS, IRON MOUNTAIN, AND GREAT SOUTHERN.
 49. INTERNATIONAL AND GREAT SOUTHERN.
 50. HOUSTON AND TEXAS CENTRAL.
 51. MISSOURI, KANSAS, AND TEXAS.
 52. ST. LOUIS AND SAN FRANCISCO.
 53. TEXAS AND PACIFIC.
 54. ATCHISON, TOPKA, AND SAN FRANCISCO.
 55. UNION PACIFIC.
 56. CENTRAL PACIFIC.
 57. NORTHERN PACIFIC.
 58. SOUTHERN PACIFIC.
 59. OREGON AND CALIFORNIA.
 60. BURLINGTON AND MISSOURI RIVER.
 61. DENVER AND RIO GRANDE.
 62. ATLANTIC AND PACIFIC.



QUESTIONS ON THE MAP.

Agriculture.—What is the principal grain grown in the United States? *Ans.* Corn, or maize. Where is the great "Corn Region"? What are the principal States occupying this region? What bread grain is second in the quantity grown? *Ans.* Wheat. Where is the great "Wheat Region"? What are the principal States occupying it? Where are rye and oats largely grown? Near the seaboard of what States is rice raised? What two States produce sugar? In which of the Central States are hemp and tobacco extensively cultivated? In which of the Southern States, eastern division, is tobacco an important product? Of the exports of the United States which has the greatest money value? *Ans.* Cotton. In which two sections is the great "Cotton Region"? What are the principal States included in it? In which States is sea-island cotton raised?

Grazing.—Where is the great "Pasture Region" of the United States? What are the principal States included in this region? With what physical region does the "Pasture Region" coincide? *Ans.* The Plains. What can you say of this region? *Ans.* It is the grazing ground of countless herds of cattle, which are here raised for beef, hides, and tallow. Where

are butter and cheese produced in great quantities? *Ans.* In the Middle and East Central States.

Forest Products.—Where is the principal "Forest Region" of the United States? In what other parts are extensive forest? *Ans.* In Maine, New York, North Carolina, Georgia, Alabama, Florida, Oregon, and Washington Territory. In what belt of States are tar, pitch, rosin, and turpentine marked on the map as products?

Minerals.—Where is the great "Mineral Region" of the United States? Which of the physical divisions of the United States does it comprise? Which two precious metals are found in great quantities in this region? Which are the two most useful minerals? *Ans.* Coal and iron. In which sections of the United States are the chief deposits of coal? Name the States. Where is iron found most largely? Lead? Copper? Salt? *Ans.* In New York, West Virginia, and Louisiana. In what States is petroleum found?

Manufactures.—In what sections of the United States is manufacturing most largely carried on?

Transportation.—What is a trunk line of railroad? *Ans.* It is a principal line between distant and important points. What four divisions of trunk lines may be made? *Ans.* The Eastern, Central, Southern, and Western. What are the principal Eastern trunk lines? *Ans.* They are Nos. 1, 6, and 7, 8, 10, 11. (See list of "Principal Railroads.") Name these lines. What is the eastern terminus of the Grand Trunk railroad? What is its western terminus? *Ans.* Detroit. What two railroads form a trunk line from New York to Buffalo? *Ans.* Nos. 6 and 7. What other trunk line between New York and Buffalo? *Ans.* No. 8. What road between Philadelphia and Pittsburg? What roads form the most direct connection between New York and New Orleans.

What is the great railroad centre of Illinois? What road connects Chicago with Detroit? *Ans.* No. 14. Chicago with Buffalo? *Ans.* No. 13. What two trunk lines connect No. 13 with New York City? What road passing through Fort Wayne connects Pittsburg with Chicago? By what trunk line is Chicago connected with Baltimore and Washington? *Ans.* No. 11. What are the principal roads connecting Chicago and St. Louis.

What two cities are next to Chicago the greatest railroad centres in the Central States? What trunk lines connect Chicago with the Union Pacific road at Omaha? By what road is St. Paul connected with Winnipeg? What are the termini of the Illinois Central road? *Ans.* Cairo, Chicago, and Sioux City. What points does the Chicago and Alton road pass through between Chicago and Kansas City? What road passing through Indianapolis connects Pittsburg with St. Louis? Through what other important point does No. 25 pass? What commercial centres are connected by No. 26? By what road is the most direct communication between Cincinnati and St. Louis?

By what road are Washington and Richmond connected? Richmond and Wilmington, N. C.? To what city in South Carolina does this road extend? To what city in Georgia? *Ans.* Augusta. What road connects Richmond with the Ohio River? *Ans.* No. 29. By what roads is Chattanooga connected with Norfolk? How is Chattanooga connected with Cincinnati? By what road is Charlotte connected with Atlanta? By what roads is Atlanta connected with Charleston? By what road is Louisville connected with Memphis? Memphis with Chattanooga? Columbus (Ky.) with New Orleans? Cairo and New Orleans? St. Louis and Texarkana?

What is the eastern terminus of the Northern Pacific road? What is its western terminus? *Ans.* New Tacoma, on Puget Sound. What two roads forming a continuous line extend from Omaha to San Francisco? What is the eastern road called? The western? Where do they meet? *Ans.* At Ogden. By what road are Kansas City and Denver connected? Denver and Cheyenne City? What road connects Atchison with Leadville? Atchison with Santa Fé? What is the route of the Southern Pacific road? *Ans.* From San Francisco southward through California, then eastward through Arizona to El Paso on the Rio Grande. How many routes are now completed to the Pacific Coast?

What is the longest canal in the United States? *Ans.* The Erie Canal, connecting the Hudson River with Lake Erie at Buffalo.

[For railroads of particular States the teacher should ask additional questions.]

PHYSICAL SOUTH AMERICA.



PHYSICAL VIEW OF SOUTH AMERICA.

QUESTIONS ON THE PHYSICAL MAP.

- I. What great circle crosses the northern part of South America? In which zone is the greater part of this grand division? What tropic crosses it? In which zone is the northern part of South America? The southern part? By what isthmus is South America connected with North America? Name the most northerly cape. The most easterly. The most southerly. The most westerly. What time is it at Rio Janeiro when it is noon at Washington? Through what part of South America does the meridian of Washington pass?
- II. Along which coast is the longest and loftiest mountain system? What plateau is in the central part of the system? What lakes on it? What volcanic mountains are near the Equator? What volcano near the Tropic of Capricorn? What highland is in the eastern part of South America? Name three ranges on this plateau. What highland is in the northern part? Name two ranges on it.
- III. What three lowlands east of the Andes? What name is given to the northern lowland? What river drains the llanos? What name is given to the middle lowland? What river drains the selvas? What name is given to the southern lowland? What rivers drain the pampas?

- IV. In what mountain regions does the Orinoco originate? With what branch of the Amazon is it connected? What tributaries of the Amazon drain the Brazilian Highland? What great river forms the principal drainage of the Andes? What and where are the head streams of the Amazon? What river drains the southern part of South America? What is the estuary of the Parana named?
- V. What ocean-currents flow along the northern part of South America? Along the eastern part? The southern? The western?
- VI. In what parts of South America is gold found? Silver? Diamonds? Copper? In what parts of South America is coffee produced? Cotton? Sugar? Tobacco? Pepper? Cacao? Rice? Wheat? Cinchona? Caoutchouc?

DESCRIPTION.

[Area, 6,885,000 square miles. Population 28,600,000.]

I. SURFACE.

1. **Natural Divisions.**—The surface of South America is naturally divided into three regions,—the Andes region, the Atlantic highlands of Brazil and Guiana, and a central plain comprising the llanos, the selvas, and the pampas.

2. **Pacific Highland.**—The Andes Mountains, which form the main axis of South America, extend along the entire western coast in one, two, or three gigantic ranges, resting on a broad table-land, and enclosing elevated plateaus.

- I. The Andes are the most continuous mountain system on the surface of the earth. They have a breadth of from 200 to 300 miles, and reach their greatest altitude near the center of the system in Bolivia, where several summits are nearly 25,000 feet above the sea. (Mount Illampu, the loftiest, 24,812 feet.)

- II. The Andes contain several groups of volcanoes, the most noted of which are Chimborazo and Cotopaxi in Ecuador, and Aconcagua in Chili. The whole Andes region is subject to terrible earthquakes, which sometimes destroy entire cities.

3. **Atlantic Highlands.**—The Atlantic highlands are the Brazilian Highland and the Guiana Highland.

- I. The Brazilian Highland is a broad but low table-land, ridged by ranges not over 5,000 to 6,000 feet high.
- II. The Guiana Highland is a rugged region traversed by mountains that form the watershed between the basins of the Amazon and Orinoco Rivers.

4. **The central plain** is the vast level lowland extending from the eastern base of the Andes to the Atlantic Ocean, except where interrupted by the highlands of Brazil and Guiana.

5. **Its Divisions.**—The central plain includes the three immense basins of the Orinoco, Amazon, and La Plata rivers. The plains of the Orinoco are called *llanos*, and are treeless; those of the Amazon are called *selvas*, and are covered with forests, the largest and densest in the world; those of the La Plata are called *pampas*, and are covered with tall grass.

Local Time A.M. 7 when Noon on the Meridian of Greenwich.

Longitude 70 West from Greenwich.

11 A.M. NOON Local Time 1 P.M. when Noon on the Meridian of Washington.

SOUTH AMERICA

PHYSICAL MAP

SCALE OF MILES

Lowlands Green. Highlands Buff.





PLANTS OF SOUTH AMERICA.

II. DRAINAGE.

6. The river system of South America is the most extensive on the globe, and includes the Orinoco, Amazon, and La Plata.

From the fact that the long slope of South America is eastward from the Andes, all the great rivers flow in that general direction into the Atlantic. The streams flowing into the Pacific are mere mountain torrents.

III. CLIMATE.

7. The two climatic regions of South America are the tropical region and the temperate region, determined partly by latitude and partly by altitude.

8. The tropical region includes all that part which is in the lowlands of the Torrid Zone, — three-fourths of South America.

9. The temperate region includes the countries of the South Temperate Zone, which, from their latitude, have a moderate temperature; and the high table-lands of the Andes, which, owing to their elevation, have a cool and healthful climate.

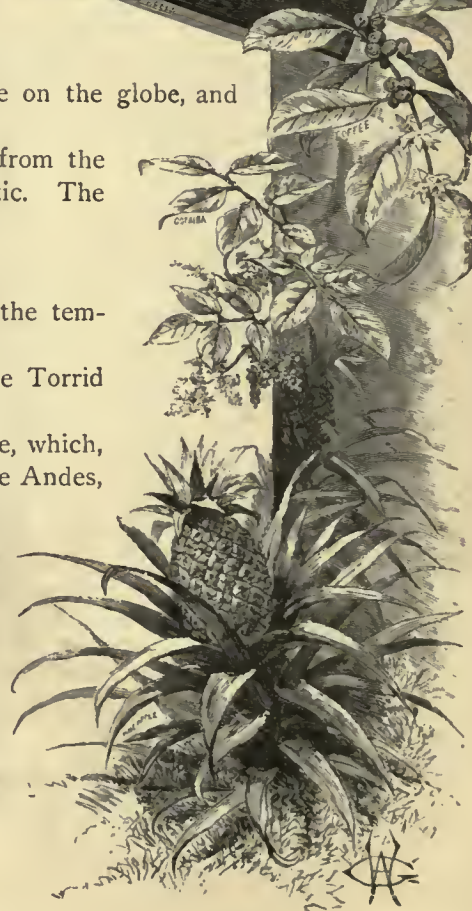
10. **Rainfall.** — The tropical plains of South America are remarkable for the abundant rainfall which they receive; but little moisture falls on the Pacific slope, and for more than one thousand miles the coast is rainless.

The Andes have a striking effect on the distribution of moisture over South America.

The moisture-laden trade-winds from the east drench the wide plains from November to May; but, in passing over the Andes south of the Equator, these winds are deprived of their moisture, and hence cause on the Pacific side a long stretch of rainless coast. North of Peru, where the mountains have less elevation, the rain-clouds pass down to the Pacific slope, and water it abundantly. Patagonia receives a copious rainfall, caused by the counter trade-winds of the Pacific.

IV. VEGETATION.

11. Owing to its combination of great and continuous heat with abundant moisture, South America has wonderful richness and variety of vegetation. It may be divided into two plant-regions, of which some characteristics are, —





Tropical Region.

Natural Growths. — Palms, tree-ferns, the mahogany, rosewood, logwood, caoutchouc, and cinchona trees.

Cultivated Products. — Coffee, cotton, sugar, tobacco, cacao, manioc, banana, sago.

Temperate Region.

Natural Growths. — Oak, pine, and fir trees, pampas-grass, cacti.

Cultivated Products. — Maize, wheat, beans, maté-shrub, potatoes, tomatoes.

V. ANIMALS.

12. **Characteristics.** — South America has few of the higher types of animals; but bird and insect life is remarkable for variety and brilliancy, and the reptiles are large and numerous. Characteristic animals of the lowlands are the puma, the jaguar, and the monkey, the boa, the tapir, and the armadillo; and of the Andes are the llama (a beast of burden) and the condor (the largest of flying birds).

13. The domestic animals — the horse, cow, and sheep — are not native to the American continent; and those of South America were originally introduced from Europe.

VI. RESOURCES AND PRODUCTIONS.

14. The natural advantages of South America are its valuable vegetable productions, its immense pasture-lands, and its rich mines of gold, silver, and precious stones.

The principal productions may be thus classified: —

1. Vegetable productions: (a) cabinet-woods and dye-woods, the cocoanut and sago palms, india-rubber and medicinal plants; (b) tropical fruits; (c) the cultivated plants, as the coffee-tree, sugar-cane, &c.
2. Animal productions; as beef, tallow, hides, horns, hair, &c., derived from the myriads of wild cattle on the vast plains.
3. Mineral productions; namely, gold, silver, copper, and diamonds.

VII. RACES OF MAN.

15. The races of South America are Indians, whites, negroes, and mixed races.

The *Indians* are descendants of the aboriginal tribes of South America. They form a large part of the population.

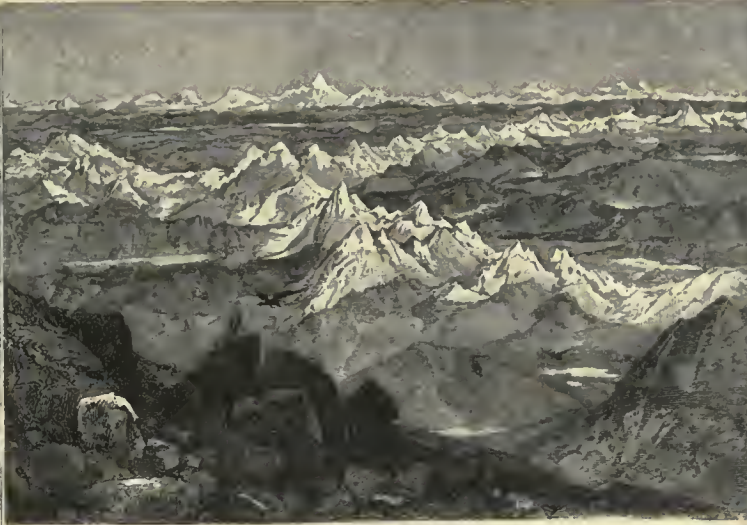
The *whites* are descendants of the Spaniards and Portuguese who took possession of South America after its discovery by Columbus.

The *negroes* are descendants of blacks brought as slaves from Africa, and form about one-fifth of the population.

The *mixed races* come from the blending of the various races of South America, and form the greater part of the population.







OCEAN OF MOUNTAIN-PEAKS IN THE ANDES.



POLITICAL SOUTH AMERICA.

QUESTIONS ON THE POLITICAL MAP.

I.

General.—What countries of South America border on the Caribbean Sea? On the Atlantic Ocean? On the Pacific? Through what countries do the Andes extend? What countries are drained by the Orinoco and its tributaries? By the Amazon? By the La Plata and its tributaries? What countries are crossed by the Equator? By the Tropic of Capricorn?

Colombia.—What political division of North America joins Colombia on the north-west? What is the general direction of the Isthmus of Panama? What mountains in Colombia? What is the chief river of Colombia? What is the relative situation of Panama and Aspinwall? Locate Bogota. Cartagena.

Venezuela.—Bound it. What great river traverses it? What boundary mountains between Venezuela and Brazil? What lake and gulf in the northern part? What is the capital? Locate Maracaybo. Angostura. La Guayra.

Guiana.—Bound the Guianas. What boundary mountains south? What waters north? Give the capital of each colony.

Brazil.—Bound it. In what zone is the greater part? What is the largest river? In what latitude is the mouth of this river? What rivers form most of the western boundary of Brazil? What is the general direction of the chains of the Brazilian mountain-system? Near what tropic is Rio Janeiro? Locate Bahia. Pernambuco.

Paraguay and Uruguay.—Bound Uruguay, and name its capital. Bound Paraguay, and name its capital.

Argentine Confederation.—Bound the Argentine Confederation. Name its largest rivers. What capes on the coast? Where is Buenos Ayres? Mendoza? Cordova? What extensive possession has the Argentine Confederation in the south, east of the Andes? What does the strait of Magellan separate?

Chili.—Bound Chili. What islands off the coast? Between what parallels is Chili? What city is the capital? Name two seaports north of Santiago.

Bolivia.—Bound Bolivia. Its small sea-coast is crossed by what circle? Of what two great rivers are its streams tributaries? What is the capital? Locate Sucre. Cochabamba.

Peru.—Bound Peru. Does the greater part belong to the Andes region, or to the central plain? What great river has its head-waters in the Peruvian Andes? What is the capital? Locate Arequipa. Cuzco.

Ecuador.—Bound Ecuador. What gulf in the south-western part? Most of the streams are tributaries of what river? What great volcanic peaks in Ecuador? Near what circle is the capital? Locate Guayaquil. Cuenca.

II.

Islands.—In what direction is it from the nearest land? By what waters surrounded?

Trinidad? Falkland? Tierra del Fuego? Chiloe? Juan Fernandez?

Capes.—Where is it? Into what water does it project?

Blanco (E)? Blanco (W)? Gallinas? Horn? St. Roque? Frio?

Mountains.—In what part of South America are they?

Andes? Parime? Geral? Serra do Espinhado? Aconcagua? Sorata? Cotopaxi?

Seas, Gulfs, &c.—Where is it? Of what body of water is it an arm?

Caribbean? Darien? San Matias? St. George? Guayaquil? Panama? Strait of Magellan?

Lakes.—Where is it?

Maracaybo? Titicaca? Aullagas?

Rivers.—Where does it rise? In what direction, and into what, does it flow?

Amazon? Madeira? Tocantins? Magdalena? Orinoco? Rio de la Plata? Uruguay? Parana? Colorado? Negro?

Cities.—In what part of the country? How situated?

Aspinwall? Maracaybo? Bogota? La Guayra? Caracas? Georgetown? Paramaribo? Cayenne? Para? Pernambuco? Rio Janeiro? Montevideo? Asuncion? Buenos Ayres? Valparaiso? Santiago? Sucre? Potosi? Cuzco? Callao? Guayaquil? Quito? Panama? Tucuman? Rosario?

DESCRIPTION.

TABLE OF SOUTH-AMERICAN COUNTRIES, POPULATION, EXPORTS, CITIES, AND GOVERNMENTS.

COUNTRY.	AREA.	POPULATION.	PRINCIPAL EXPORTS.	CAPITAL.	LARGEST CITY, WITH POPULATION IN EVEN THOUSANDS.	SEAPORTS.	GOVERNMENT.
Colombia	320,000	3,000,000	Cotton, coffee, and cinchona-bark.	Bogota	Bogota, 41.	Cartagena. Panama. Aspinwall.	Republic.
Venezuela	439,000	2,075,000	Coffee, cocoa, indigo, cattle-products (as hides, tallow, etc.).	Caracas.	Caracas, 55.	La Guayra. Maracaybo. Angostura.	Republic.
British Guiana .	178,000	347,000	Indigo, cocoa, sugar, coffee, spices.	Georgetown.	Georgetown, 40.	Georgetown.	British Colony.
Dutch Guiana .				Paramaribo.	Paramaribo, 25.	Paramaribo.	Dutch Colony.
French Guiana .				Cayenne.	Cayenne, 8.	Cayenne.	French Colony.
Brazil	3,219,000	12,000,000	Coffee, cotton, sugar, hides, dye- woods, India-rubber, diamonds.	Rio Janeiro.	Rio Janeiro, 300.	Rio Janeiro. Bahia. Pernambuco. Para.	Constitutional Monarchy.
Paraguay	92,000	294,000	Paraguay tea.	Asuncion.	Asuncion, 20.	Republic.
Uruguay	72,000	438,000	Cattle-products.	Montevideo.	Montevideo, 73.	Montevideo.	Republic.
Argentine Confed- eration	1,095,000	2,540,000	Cattle-products.	Buenos Ayres.	Buenos Ayres, 290.	Buenos Ayres.	Republic.
Chili	210,000	2,223,000	Wheat, copper ore, wool.	Santiago.	Santiago, 150.	Valparaiso.	Republic.
Bolivia	500,000	2,325,000	Cinchona-bark, saltpeter, silver ore.	La Paz.	La Paz, 26.	Republic.
Peru	425,000	3,050,000	Guano, saltpeter, cinchona-bark, wool.	Lima.	Lima, 100.	Callao.	Republic.
Ecuador	248,000	946,000	Cocoa, cinchona-bark, dye-stuffs.	Quito.	Quito, 23.	Guayaquil.	Republic.

QUESTIONS ON THE POLITICAL TABLE.

I. Which is the most populous country in South America? Which ranks next in population? What three countries have each a population of two millions? Which of the republics has the smallest population? What is the population of the European colonies?

II. The principal tropical products are cocoa, coffee, cotton, India-rubber, indigo, spices, sugar, and tobacco. What countries export coffee? Are these all tropical countries? What country exports cotton? What countries export cocoa? Indigo? Spices? Sugar? Tobacco? What countries export cattle-products? What connection is there between these exports and the llanos and pampas? What countries export cinchona-bark? What country exports copper ore? Silver ore? Guano? Diamonds? What country exports a kind of tea?

III. Name the capital, the metropolis, and the first seaport, of each of the maritime countries of South America.

IV. What is the largest city of South America? Which city is second in size? Which countries of South America have no seaports? Why? Near what geographical circle is the largest city of South America?

V. What is the only monarchy in South America? What three European countries have each a colony in South America? What nine countries of South America are republics?

RANK AND CIVILIZATION OF THE COUNTRIES.

I. Colombia is the most important of the northern republics; it has a commanding geographical position, from its possession of the Isthmus of Panama, across which, from Panama to Aspinwall, there is railroad communication. A proposed ship-canal will connect the Atlantic with the Pacific Ocean.

II. Venezuela is a second-rank republic.

III. The Guianas are mere colonial possessions, and are unimportant, except for their tropical productions.

IV. Brazil ranks as the most powerful country of South America; it has the advantages and disadvantages of a monarchical government; and has more trade with the United States than all other South-American countries, being connected with our country by steamer lines and telegraph. It produces most of the coffee of the world, and one-half of it comes to the United States.

V. Paraguay and Uruguay are small, weak republics, that have suffered greatly from bad government, and are backward in every way.

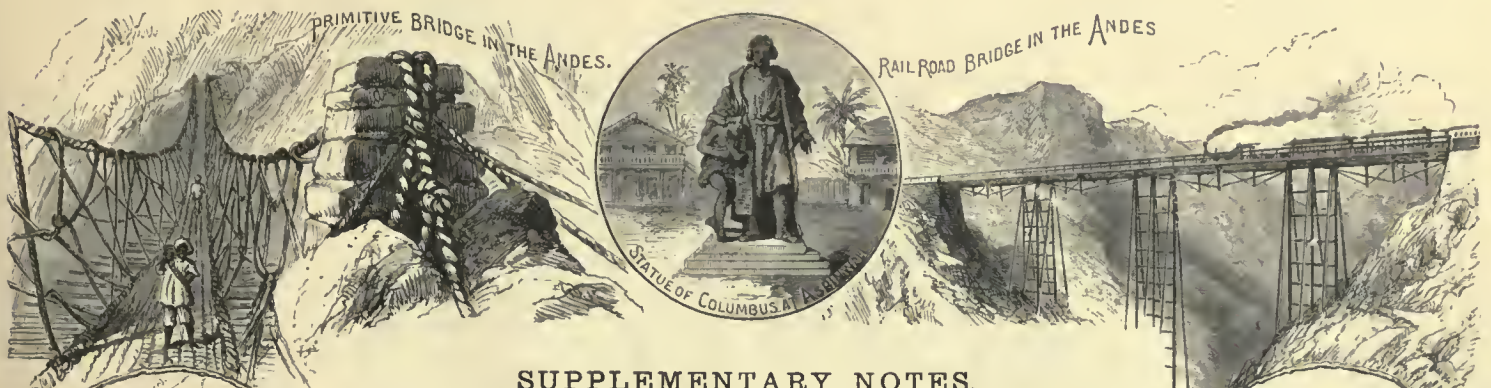
VI. The Argentine Confederation ranks next to Chili in enterprise; it is receiving emigration from southern Europe, and has a large and increasing commerce. Education is more advanced than in any other South-American country.

VII. Chili is the most enterprising of the nine Spanish-American republics; it has a large proportion of European inhabitants; and has built a railroad over the Andes. Education is fairly-well diffused.

VIII. Bolivia is rich in mines of silver, copper, and tin. Owing to want of communication, the great natural wealth of the country is little developed.

IX. Peru, a progressive republic, has several lines of railroad and many rich silver-mines. It has suffered greatly from wars and political revolutions.

X. Ecuador is a second-rank republic.



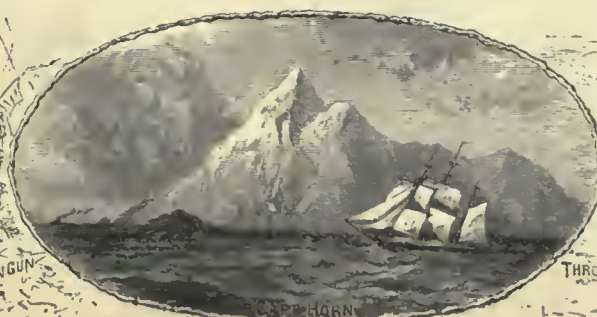
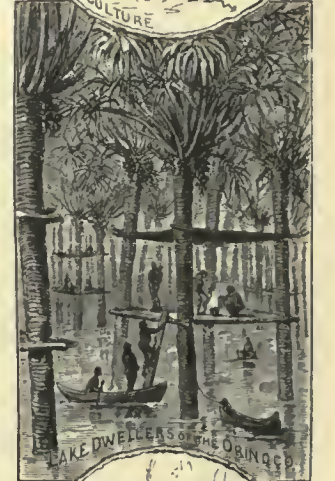
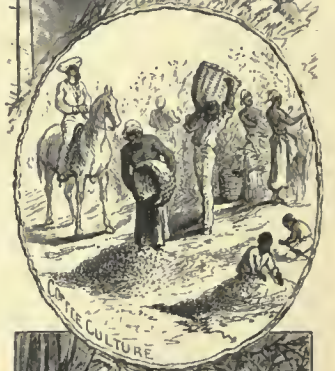
SUPPLEMENTARY NOTES.

History.—The mainland of South America was discovered by Columbus on his third voyage, in 1498. The part of the coast at which he landed was near the mouth of the Orinoco River. The brilliant success of Cortez in the conquest of Mexico incited other Spanish adventurers to similar enterprises, through which gold and glory might be gained. Among these was Pizarro, who accomplished the conquest of Peru, then inhabited by people who had attained a considerable degree of civilization. Brazil, occupied by the Portuguese in 1549, fell successively under the dominion of Spain and Holland, but was finally recovered by Portugal in 1564. In the mean while, nearly the whole of the northern and western parts of South America had been overrun by the Spaniards. Early in the present century the Spanish colonies of South America threw off the yoke of the mother-country, and became independent republics. Brazil was erected into one of the kingdoms of Portugal, and in 1822 was proclaimed an independent empire.

Social Condition.—In civilization, the South American countries occupy a secondary place. Among the masses of the population, education is little diffused; but there are numerous schools for the wealthier classes, and the secondary or higher education is well provided for. In the republics, political revolutions are very frequent,—a fact that greatly retards the progress of these states. There are but few manufactures in the South American countries; but they supply the world with immense quantities of coffee, sugar, cotton, tobacco, caoutchouc, cattle products, dye-woods, drugs, spices, and fruits. The means of interior communication are extremely rude. In the Andes countries, transportation is effected almost entirely by pack-animals. Recently, however, considerable progress has been made in railroad construction in various parts of South America, and there are now one or more railroads over the Andes.

Among the characteristic and most valuable products of South America may be mentioned the diamond, which is extensively mined in Brazil by the process of washing, as shown in the cut, and the digging of guano, immense deposits of which are found on the Chincha Islands off the coast of Peru.

The Isthmus and Cape Horn.—These two extremes of South America possess a peculiar interest. The Isthmus of Panama forms here the narrow barrier between the Atlantic and Pacific oceans, and in consequence of this obstacle the world's maritime commerce is required to perform the prodigious circumnavigation of the continent, a distance of ten thousand miles. Various projects of cutting an inter-oceanic canal across the isthmus engage public attention. In the mean time communication is had by a railroad—perhaps the most important short railroad in the world—from Panama to Aspinwall, known commercially as Colon, the Spanish form of the name Columbus. Cape Horn Island, or Cape Horn, is a precipitous rock forming the southernmost of the Tierra del Fuego Islands. This southern extremity of South America is a gloomy region of fogs, rains, and storms.



PHYSICAL EUROPE.

QUESTIONS ON THE PHYSICAL MAP.

I. What is the only zone circle crossing Europe? In which zone is the greater part of this grand division? In which zone is the northern part? From what other grand division does Europe project? What grand division south of Europe? How many hours in the longest day at Rome? At Paris? At St. Petersburg? What is the difference between the longest day at Lands End and the longest day in the Orkney Islands? When it is noon at Washington what time is it at London? At Berlin? At Constantinople? As the earth rotates through 15° per hour, what is the difference in degrees between Washington and Berlin?

II. What ocean north of Europe? What sea is an arm of this ocean? What ocean west of Europe? What sea east of the British Isles? What sea separates the British Isles? What body of water connects the Irish Sea with the Atlantic Ocean? What channel and strait separate the British Isles from Lowland Europe? What sea and what two gulfs west of the Eastern Plain? What channels connect the Baltic Sea with the North Sea? What bay west of the Western Plain? What sea between Europe and Africa? What strait is its entrance? What three gulfs in the northern part of the Mediterranean Sea? What gulf south-east of Italy? What are the two principal arms of the Mediterranean Sea? What strait connects the Adriatic Sea with the Mediterranean? What sea and what two straits connect the Aegean Sea with the Black Sea? What seas south of the Eastern Plain? What sea forms the south-eastern boundary of Europe? What great peninsula forms the north-western part of Europe? *Ans.* The Scandinavian Peninsula. What three great peninsulas project from Highland Europe? *Ans.* Spain, Italy, and Greece. What peninsula projects from the Eastern Plain into the Black Sea? What is the most northern cape? Name all the capes between North Cape and Cape St. Vincent. What is the most southern cape of Europe? What cape projects from Sicily?

III. What large island, ranked as part of Danish America, is shown on this map? What large islands west of the mainland of Europe? What small groups of islands north of the British Isles? What large islands in the Mediterranean Sea west of Italy? What large island near the southern extremity of Italy? What island south of Sicily? In what direction from Turkey is the Archipelago? What island south of the Archipelago?



PHYSICAL VIEW OF EUROPE.

IV. What are the two most general divisions of Europe with regard to surface? *Ans.* Highland Europe and Lowland Europe. Which is in the south-west? Which in the north-east? Which is the more extensive? What peninsula forms the south-western projection of Highland Europe? What plateau in this peninsula? What mountains in the peninsula of Spain? What is the principal mountain-system of Europe? *Ans.* The Alps. What mountains in the Italian peninsula? What mountain-range in Turkey? What volcano in Italy? In Sicily? What volcano in Iceland?

V. What mountains form the south-eastern border of Lowland Europe? The eastern? The north-western? What mountain systems form the south-western border of Lowland Europe? What hills near the center of the Eastern Plain? What two plains form the principal divisions of Lowland Europe? Where are the Steppes? What are the principal plains of Highland Europe? On what waters does the Western Plain border? Where is the Lake Region?

VI. What are the principal rivers of the Western Plain? In what general direction do these rivers flow? What river flows into the Gulf of Bothnia? In what general direction do the rivers of the Scandinavian Peninsula flow? What are the principal rivers flowing into the Baltic Sea? What river flows into the White Sea? Near what geographical circle is its mouth? What river flows into the Arctic Ocean? In what mountain range are its sources? What two rivers flow into the Caspian Sea? Which of these rivers forms a partial boundary between Europe and Asia? What river flows into the Sea of Azof? What two rivers into the Black Sea? Name two tributaries of the Danube. What river flows into the Gulf of Riga? In what hills does the Duna River rise? What river flows into the Adriatic Sea? Into the Gulf of the Lion? What two rivers flow into the Bay of Biscay? Name four rivers of Spain.

VII. What are the principal vegetable productions of the Mediterranean countries of Europe? Of Highland Europe? Of the Eastern Plain? Of the Scandinavian Peninsula? What parallel crosses the line marking the northern limit of the cultivation of the vine? Of maize? Of wheat? Where is the line marking the northern limit of the cultivation of rye, oats, and barley?

Where are treeless plains? Where are the principal mining regions of Europe? What fish are taken in the Arctic region? What other animals are found in this region? What fish are taken off the coasts of the British Isles and the Scandinavian Peninsula? In the Bay of Biscay? In the Mediterranean Sea? What ocean current between Iceland and the Scandinavian Peninsula? What great ocean current flows along the western coast of northern Europe? Where does the Gulf Stream originate? *Ans.* In the Gulf of Mexico. (See Physical Map of North America, p. 14.)

VIII. What ocean current between Iceland and the Scandinavian Peninsula? What great ocean current flows along the western coast of northern Europe? Where does the Gulf Stream originate? *Ans.* In the Gulf of Mexico. (See Physical Map of North America, p. 14.)

DESCRIPTION.

[Area, 3,757,000 square miles. Population, 330,000,000.]

I. SITUATION, EXTENT, AND OUTLINE.

1. **Situation and Extent.**—Although loosely called a *continent*, Europe is really a western peninsula of the Eastern Continent, Asia being the main continental mass.

It is the smallest of the grand divisions, its area being about the same as that of the United States. It measures about 2,500 miles from north to south, and nearly 3,500 miles in its greatest extent east and west.

2. **Outline.**—The outline is exceedingly



irregular, being marked by numerous projections of the land, and inbreakings of the sea. These give to Europe an extent of coast-line, which, in proportion to its area, is much greater than that of any other grand division.

The length of its coast is about 20,000 miles, or one linear mile of coast for every 190 square miles of surface.

II. SURFACE AND DRAINAGE.

3. **Natural Divisions.**—The surface of Europe is naturally divided into two parts,—Lowland Europe in the north-east, and Highland Europe in the south-west.

A diagonal line of mountain-ranges, extending from south-east to north-west (Caucasus, Carpathians, and the mountains of Central Germany), forms the general dividing-line between the mountainous and the level portions of Europe.

4. **Lowland Europe** is a great plain extending from the Arctic Ocean to the Caucasus Mountains and the Black Sea, and westward from the Ural Mountains to the Bay of Biscay. It is divided into the Eastern Plain and the Western Plain.

The Eastern Plain nearly coincides with Russia; the Western Plain is occupied by northern Germany, Denmark, Holland, Belgium, northern France, and is prolonged into Great Britain.

5. **The Rivers of the Eastern Plain** are the longest in Europe, though most of them are commercially of far less importance than those of western Europe.



The three largest are the Volga (over 2,000 miles) and the Dnieper and the Don (each about 1,000 miles).

In the north-western part of the Eastern Plain is a region of great lakes, including lakes Ladoga and Onega, the largest in Europe.

6. **Highland Europe** has a varied surface of mountain, valley, and plain.

7. The main axis is formed by the Alps, which extend from the Gulf of Genoa in a curve around Northern Italy, and eastward to the Adriatic. The Balkan Mountains, a direct continuation of the Dinaric Alps, prolong the main axis eastward to the Black Sea.

The Alps average over two miles in height; and Mont Blanc, the loftiest elevation in Europe, has a height of 15,784 feet.



8. **Rivers of Highland Europe.** — The Alps form the principal watershed of Highland Europe; and here rise four of the most important rivers of this section, — the Danube, Rhine, Rhone, and Po.

The **Danube** (1,800 miles long) is the second of the European rivers: it is the channel of the internal trade of southern Germany, Austria, and Turkey.

The **Rhine** (880 miles long), which rises in the central Alps, and flows into the North Sea, is navigable for steamers to Basle: it is celebrated both for its picturesque scenery and for the many large cities on its banks.

The **Rhone** (490 miles long) drains south-eastern France, and flows into the Mediterranean.

The **Po** (450 miles long), the longest river of Italy, waters the fertile plain of Lombardy.

III. CLIMATE, VEGETATION, ANIMALS, ETC.

9. **Climate and Vegetation.** — Europe is divided into three zones of climate and vegetation, — the Southern, the Central, and the Northern.

COUNTRIES.	CLIMATES.	VEGETATION.
Southern Zone . . { 1. The Southern peninsulas, Spain, Italy, Greece; 2. southern France; 3. Turkey.	Marked by a short winter and a long summer.	Semi-tropical; as the vine, mulberry, olive, orange, lemon, fig, &c.
Central Zone . . . { 1. Middle and northern France; 2. British Isles; 3. Denmark; 4. Southern Norway and Sweden; 5. Germany; 6. Holland; 7. Belgium; 8. Switzerland; 9. Austria; 10. Southern Russia.	Marked by the four seasons, with a gradual transition from one to the other.	The cereals, root-crops, garden and orchard products, flax, hemp, &c.
Northern Zone . . { 1. Northern Norway and Sweden; 2. Lapland; 3. Northern Russia.	Marked by short summers, and long and severe winters.	Only scanty vegetation.

10. **Animals.** — Europe, with its ancient civilization, is the home of the domesticated, rather than the wild animals. Of the latter, however, may be mentioned the polar bear, the brown bear, reindeer, wolf, stag, deer, fox, ibex, and chamois, together with several hundred species of birds. The seas and rivers of Europe abound in fish.

11. **Races.** — With a few exceptions (the most important of which are the Turks, and the Magyars of Hungary, who are Mongolians), the people of Europe belong to the Caucasian race, and are divided into four families, — the Celtic, Germanic or Teutonic, Græco-Roman, and Slavic.



ANIMALS OF EUROPE.

POLITICAL EUROPE.



QUESTIONS ON THE POLITICAL MAP.

Islands. — In what direction is it from the nearest land? By what waters surrounded?

Lofoden Islands? Cyprus? Iceland? Sardinia? British Isles? Corsica? Faroe Islands? Sicily? Crete?

Peninsulas. — From what country does it project? Into what water, or between what waters?

Crimea? Spain and Portugal? Denmark? Norway and Sweden? Greece? Italy?

Capes. — Where is it? Into what water does it project?

North? St. Vincent? Clear? Matapan? Finisterre? The Naze?

Mountains. — Where are they?

Ural? Scandinavian? Pyrenees? Carpathian? Alps? Apennines?

Seas, Gulfs, and Bays. — Where is it?

White? Black? North? Baltic? Irish? Adriatic? Gulf of Genoa? Of the Lion? Archipelago? Bay of Biscay?

Straits and Channels. — Between what lands? What waters does it connect? Gibraltar? Bosphorus? Dover? Cattegat? English Channel? Dardanelles?

Rivers. — Where does it rise? Through what countries, and into what body of water, does it flow?

Rhine? Volga? Don? Danube? Po? Rhone? Dwina? Dnieper? Elbe? Vistula?

Lakes. — Where is it? What is its outlet?

Ladoga? Onega? Peipus? Wener? Wetter?

Countries. — Where is it? How bounded? What is the capital?

England? Scotland? Ireland? France? Switzerland? German Empire? Austro-Hungary? Norway? Sweden? Denmark? Holland? Belgium? Spain? Portugal? Italy? Turkey? Greece?

Cities. — In what part of what country?

Rome? Athens? Constantinople? Liverpool? Hamburg? Warsaw? Moscow? Glasgow? Gottenburg? Archangel? Odessa? Bremen? Hammerfest? Lyons? Belfast? Bucharest?

REFERENCE TABLE OF EUROPEAN COUNTRIES.

NAMES.	AREA.	POPULATION.	CAPITALS.	LARGEST CITY, AND POPULATION.	FORM OF GOVERNMENT.
	Square Miles.				
Great Britain and Ireland	121,600	35,246,000	London.	London (4,764,000).	Constitutional monarchy.
France	204,080	37,672,000	Paris.	Paris (2,269,000).	Republic.
Switzerland	15,910	2,846,000	Berne.	Geneva (68,000).	Republic.
German Empire	208,690	45,234,000	Berlin.	Berlin (1,122,000).	Constitutional monarchy.
Netherlands	12,740	4,114,000	The Hague.	Amsterdam (328,000).	Constitutional monarchy.
Belgium	11,370	5,520,000	Brussels.	Brussels (395,000).	Constitutional monarchy.
Austro-Hungary	264,950	39,196,000	Vienna.	Vienna (1,103,000).	Constitutional monarchy.
Russia	2,165,900	85,508,000	St. Petersburg.	St. Petersburg (876,000).	Absolute monarchy.
Sweden and Norway	299,610	6,497,000	Stockholm.	Stockholm (176,000).	Constitutional monarchy.
Denmark	14,780	1,969,000	Copenhagen.	Copenhagen (235,000).	Constitutional monarchy.
Spain	193,220	16,343,000	Madrid.	Madrid (398,000).	Monarchy.
Portugal	34,410	4,160,000	Lisbon.	Lisbon (246,000).	Constitutional monarchy.
Italy	114,410	28,459,000	Rome.	Naples (494,000).	Constitutional monarchy.
Greece	24,970	1,979,000	Athens.	Athens (63,000).	Constitutional monarchy.
European Turkey	63,800	4,499,000	Constantinople.	Constantinople (600,000).	Absolute despotism.
Roumania	50,170	5,376,000	Bucharest.	Bucharest (221,000).	Constitutional monarchy.
Servia	18,750	1,700,000	Belgrade.	Belgrade (27,000).	Constitutional monarchy.
Montenegro	3,480	236,000	Cettigne.	Podgoritz (4,000).	Constitutional principality.
Bulgaria	24,700	1,999,000	Sophia.	Rustchuk (27,000).	{ Semi-independent constitutional monarchy.
Eastern Roumelia	13,860	816,000	Philippopolis.	Philippopolis (24,000).	{ Semi-independent Turkish province.



FRANCE AND SWITZERLAND.



QUESTIONS ON THE MAP.

FRANCE.

Situation.—On how many borders has France a *natural* boundary? What is this boundary on the north? The west? The south? What country north-east of France? What countries east? Is most of France east, or west, of the meridian of Greenwich? Measure by the scale of miles the greatest extent of France from north to south. From east to west.

Outline.—What waters wash the north-western and western coasts of France? Of what ocean are these arms? What sea on the south? What capes (or points) project from the north-western and western coasts? From the southern coast? What group of islands off the north-west coast? To what power do these islands belong? *Ans.* To Great Britain. What large island in the Mediterranean belongs to France? *Ans.* Corsica. In what town in this island was Napoleon Bonaparte born? *Ans.* In Ajaccio.

Mountains.—What mountains border France on the south? What small republic in the Pyrenees? *Ans.* The republic of Andorra. What mountain-range between France and Switzerland? Between France and Italy? What peak just south of latitude 46° is on the border line between France and Italy? For what is Mont Blanc remarkable? *Ans.* It is the loftiest summit of the Alps (15,784 feet). What other noted mountain south-east of Mont Blanc? What mountain-ranges are in the interior of France?

Rivers.—What large river flows into the English Channel? What are its principal tributaries? What two large rivers flow into the Bay of Biscay? What large river flows into the Gulf of the Lion? (Describe each of these rivers by stating *where it rises, in what direction, and into what body of water, it flows.*)

Cities.—What cities are on the Seine River? Which is the capital? What city is its port? Where are Cherbourg and Brest, important naval stations? Where is Toulon, the great naval dockyard of France? What large city on the Loire? On the Garonne? On the Rhone? What seaport on the Gulf of the Lion? What large city near the Belgian border? What large city south-west of Lyons?

SWITZERLAND.

What countries surround Switzerland? What can you say of its seacoast? What is the nature of its surface? What great mountain-system covers most of Switzerland? What mountain-range on its north-western border? What noted mountain-peak in the central part? In the south-western part? What lake on the north-eastern border? What lake on the south-western border? Name three other Swiss lakes. What two large rivers rise in Switzerland? Describe their course. What is the capital? What city on Lake Geneva? Locate Basle. Zurich.

FRANCE.

1. **Extent and Rank.** — In area France is somewhat larger than California, but not so large as Texas. It ranks as one of the oldest, most powerful, and most highly civilized nations of Europe.

2. **Climate and Vegetation.** — The climate varies from cool-temperate, in the north, to warm-temperate, in the south. In passing from the English Channel to the Mediterranean Sea, the character of the vegetation shows the gradual rise of temperature. The north is the land of wheat; the center, the land of the vine; and the south, the land of the olive.

3. **Occupations.** — The principal occupations are agriculture, manufacturing, and commerce.

4. **Agriculture.** — About three-fifths of the population are engaged in agricultural occupations, and about one-half of the whole country is under the plow. The principal objects of cultivation are, in the northern section, grains and root-crops, with hemp and flax; in the central and southern sections, maize and the vine and olive, together with the mulberry-tree, on the leaves of which the silk-worm feeds.

5. **Manufactures.** — In the extent and value of her manufacturing industry France ranks second only to Great Britain.

The leading manufactures are: (1) *Wine*, of which France produces more than any other country; (2) *Silks and satins*, in the manufacture of which it surpasses all other countries; (3) *Broadcloths and cassimeres* of the finest quality; (4) *Articles of taste and fashion*, such as jewelry, watches, ribbons, laces, shawls, gloves, hats and bonnets, artificial flowers, porcelain, perfumery, etc.

6. **Commerce.** — The foreign commerce of France consists principally in the importation of raw material and tropical productions, and the exportation of manufactured articles and the produce of her vineyards.

7. **Government.** — France is a republic.

8. **Cities.** — Paris is second only to London in wealth and trade. It is the most beautiful and attractive of cities, and is the world's

center of modern art, fashion, and pleasure, as London is of commerce. It is distinguished for its magnificent public buildings, public gardens, and places of amusement, and for its great libraries, museums, art-galleries, and scientific schools, as also for the manufacture and sale of articles of art, ornament, and fashion.

Lyons is the second city in rank, and the chief seat for the manufacture of silks, satins, and velvets.

Marseilles is the principal seaport, and has varied manufactures, and extensive trade in silks, wines, brandies, etc.

Bordeaux is the depot of the red-wine trade.

Lisle is noted for its manufacture of cotton and linen goods.

Foreign Possessions. — The principal foreign possessions of France are: (1) Algeria in Africa; (2) French Guiana; (3) Martinique and Guadeloupe in the West India Islands; (4) The Marquesas Islands and New Caledonia in Polynesia, and Corsica in the Mediterranean.

SWITZERLAND.

1. **Area and Surface.** — Switzerland, the area of which is about one-third that of the state of New York, is the most mountainous country in Europe.

2. **Occupations.** — Grain and the vine are cultivated in the lower valleys; but stock-raising and dairying give employment to the majority of the inhabitants.

The numerous rapid mountain-streams afford cheap and abundant water-power. The chief manufactures are cottons, woolens, linens, silks, watches, jewelry, and wood-carvings.

3. **Government.** — Switzerland is a federal republic, comprising twenty-two small states, called *cantons*.

The legislative function is vested in a Federal Assembly (corresponding to our Congress), consisting of a National Council (like our House of Representatives), and a Council of States, or Senate, both elective.

4. **Cities.** — Geneva, Zurich, and Basle, the largest cities, are the principal manufacturing and commercial places. Berne is the capital.



THE MATTERHORN, SWITZERLAND.

GERMAN EMPIRE, NETHERLANDS, AND BELGIUM.



QUESTIONS ON THE MAP.

GERMAN EMPIRE.

General.—What natural and political boundaries has Germany on the north? What country east? What two countries border it on the south? What three countries border it on the west? What mountains separate Germany from Bohemia? What mountains in the south-western part? In the central part? What two large rivers flow into the Baltic Sea? What large river flows into the North Sea within the limits of Germany? What large river flows into the North Sea beyond the limits of Germany? Name two tributaries of the Rhine in Germany. What is the largest river of Southern Germany? Where is Berlin, the capital of the German Empire? What is its largest southern boundary?

The States.—How much of Germany seems from the map to be occupied by Prussia? What is its eastern boundary? Its western? What state of the German Empire, besides Prussia, borders on the Baltic Sea? What on the North Sea? State the situation of the three "Free Cities" of Germany,—Lubeck, Hamburg, Bremen. Bound the kingdom of Saxony. The kingdom of Bavaria. The kingdom of Wurtemberg. In what part of Germany is the province of Alsace-Lorraine? Which of the German states

border on Belgium? Between or through what German states does the Rhine flow?

Cities.—On what river is Berlin? What city at the mouth of the Vistula? What two large cities on the Oder? What cities are on the Elbe? and in which state is each? What is the capital of Bavaria? What other large place in Bavaria? What large city on the River Main? What five large cities on the Rhine, and in which state is each?

NETHERLANDS.

What natural boundary have the Netherlands on the north and west? What country east? South? What arm of the North Sea breaks into the Netherlands? What large river traverses the Netherlands? What is the principal tributary of the Rhine in this kingdom? What city is the capital? What city on the Zuyder-Zee? What city south-west of Amsterdam? South-east?

BELGIUM.

Bound Belgium. Which part is mountainous? What two rivers in Belgium? What is the capital? What city north of Brussels? What two cities west of Antwerp? What city south-east of Brussels?



IN THE VINEYARD.

GERMAN EMPIRE.

1. **Area and Population.**—The area of the German Empire is nearly the same as that of France; its population is about the same as that of the United States.

2. **Its Composition.**—The German Empire is a confederation of twenty-six states, the chief of which are the kingdoms of Prussia, Saxony, Bavaria, and Wurtemberg.

3. **Government.**—The government of the empire is a constitutional monarchy. The imperial Legislature consists of two bodies,—the Federal Council (*Bundesrath*) and the Reichstag; the former consisting of members appointed by the governments of the individual states, the latter of members elected by universal suffrage.

The King of Prussia is German Emperor (*Deutscher Kaiser*).

4. **Natural Wealth.**—The natural wealth of Germany is found in its productive soil in the plains and valleys, its extensive forests in the mountain regions, and its rich supply of iron, coal, copper, zinc, and other minerals.

5. **The leading industries** are agriculture, manufacturing, mining, and commerce.

Agriculture.—Tilling the soil forms the occupation of three-fourths of the German people. The principal crops are rye (the grain most used by the people), wheat, oats, and potatoes; the vine grows in the Rhine provinces; and tobacco, flax, hemp, and beet-root are cultivated in many districts.

Manufactures.—In manufactures Germany is behind England and France; but various branches of manufacturing industry, as the making of woolen, linen, and leather goods, of wine and beer, and of paper, glass-ware, etc., are very extensively carried on.

Commerce.—Germany has considerable foreign commerce, largely with the United States and England. Wheat, wines, wool, and manufactures are the principal exports. The chief seaports are Hamburg and Bremen.

6. **Cities.**—The principal cities of the German Empire are Berlin, the political and literary capital; Breslau, the greatest wool-market in Europe; Dresden, the capital of Saxony, and Munich, the capital of Bavaria, noted for their art-galleries; Cologne, the chief commercial city of the Rhine Provinces;

Frankfort, the depot of inland trade; Dantzic, the leading grain port; and Hamburg and Bremen, great shipping and commercial centers.

NETHERLANDS.

1. **Situation.**—The kingdom of the Netherlands, commonly called Holland, occupies the lowest part of the Western Plain.

Much of the land was formerly overflowed by the sea at high tide; but it has been reclaimed by building embankments called dikes.

2. **Foreign Possessions.**—Holland has extensive colonial possessions, the population of which is six times that of the mother-country.

The principal foreign possessions are, in the East Indies, Java and most of the Moluccas, with parts of Sumatra, Borneo, and Celebes; in the West Indies, Curaçoa and St. Eustatius; in South America, Dutch Guiana. These possessions, especially those in the East Indies, have greatly promoted the foreign trade of Holland.

3. **Occupations.**—Farming and dairying, the fisheries, manufacturing and commerce, are the leading occupations.

Commerce.—Holland has fine commercial facilities, arising from its position at the mouth of the Rhine and its harbors on the North Sea. The internal trade is carried on mainly by means of canals, which run through the principal streets of the cities, and extend in a network over the whole country. The foreign commerce is very large.

4. **Population.**—The people of Holland belong to the Teutonic race, and the word "Dutch," the name by which they are known, signifies *Teutonic*.

5. **Government.**—The government is a limited monarchy.

6. **Cities.**—Amsterdam is the chief commercial city of Holland. Rotterdam is the second city in population and trade. The Hague is the seat of government.

BELGIUM.

1. **Occupations.**—Belgium has rich mines of coal and iron, which are extensively worked; hence it is naturally a manufacturing country. Agriculture is in a high state of perfection.

2. **Commerce.**—The principal exports are agricultural produce and manufactured goods, as lace, lawn, fine linens and cambrics, woolen and cotton goods, carpets, cutlery, and iron-ware.

3. **Inhabitants.**—The Belgians are, in race, language, and character, intermediate between the Dutch and the French.

4. **Government.**—The government is a limited monarchy.

5. **Cities.**—The chief cities are Brussels, the capital, noted for its manufacture of laces, carpets, etc.; Antwerp, the commercial metropolis; Ghent, a manufacturing city; Liege, which has extensive coal-mines and iron-works; and Bruges, an important manufacturing and commercial point.

AUSTRO-HUNGARIAN MONARCHY.



QUESTIONS ON THE MAP.

What two countries north of the Austro-Hungarian monarchy? What principalities border it on the east and south? *Ans.* Roumania and Servia. What natural boundary has the Austro-Hungarian monarchy on the south? What natural boundary on the south-west? What countries border it on the west? What extensive division occupies the central part of this monarchy? What important division borders Hungary on the west? What two states north of Austria? What states south of Austria? What south of Hungary? East? North? What mountain-ranges surround Bohemia? What mountain-range north of Hungary? What mountains south of Transylvania? West? North-east of Dalmatia? What three divisions in the west are exceedingly mountainous? What great river traverses this monarchy? Where are the head-streams of the Danube? Which tributary of the Danube forms a partial boundary of this monarchy? What is the principal tributary from the north? From the west? What river forms a partial boundary on the north? Where is the Dneister River? What city of Austria is the capital of this monarchy? What is the capital of Hungary? Locate Pesth. Prague. Lemberg. Gratz. Brunn. Szegedin. Cracow. What is the principal seaport?

DESCRIPTION.

1. **Its Composition.** — The Austro-Hungarian Monarchy, commonly called the Austrian Empire, is a bipartite state, consisting of the kingdom of Austria and the kingdom of Hungary.
2. **Government.** — Each of the two countries has its own government; but they are united by the fact that the Emperor of Austria is King of Hungary.
3. **Population.** — The people of the various parts of the Austrian Empire differ widely in race, language, manners, and religion.

About one-half of the population belong to the Slavonic race, and one-fifth to the Germanic; one-sixth are Magyars; and the rest are made up of Roumanians, Jews, Gypsies, Greeks, etc. The number of languages and dialects spoken in Austria exceeds twenty; but German and Hungarian are the official languages.

- 4 The leading industries are agriculture, mining, and manufacturing.



BUDA-PESTH—CAPITAL OF HUNGARY.

Agriculture.—Wheat, maize, and other cereals, together with the vine, flax, hemp, and tobacco, are largely grown. The plains east of the Danube support great herds of horses, cattle, and sheep.

Mining.—Platinum excepted, all metals abound in Austria,—gold, silver, quicksilver, copper, tin, lead, and iron. Coal-beds of vast extent are found. Of rock-salt there is a bed several hundred miles in length in Galicia, of which only a small portion is worked at a gigantic mine near Cracow.

Manufactures.—The principal manufactures are cotton, linen, and woolen goods, iron-ware, chemical preparations, and glass-ware. Hungary produces more wine than any other country except France.

5. **Commerce.**—The principal exports are wheat, wool, wine, linen, cotton, and leather goods, glass-ware and iron-ware.

Two-thirds of the whole commerce is with Germany. As Austria has but little seacoast, her direct foreign trade is limited. The Danube is the great channel for internal trade.

6. **Cities.**—Vienna, the capital and largest city, is the chief seat of manufactures and domestic commerce. Buda, on the Danube, is the capital of Hungary. Pesth, on the opposite bank of that river, is the largest city in that kingdom. Prague, in Bohemia, ranks as the third city in size in the empire. Trieste is the chief seaport.

RUSSIA IN EUROPE.

1. **European Russia** comprises about one-half of Europe, and occupies most of the Eastern Plain.

2. **Russian Empire.**—The Russian Empire is, next to the British Empire, the largest dominion in the world. It includes, besides its European possessions, more than one-third of Asia.

The Russian Empire has an area of 8,500,000 square miles, or more than double that of the United States. Its population is about 85,000,000, or nearly twice that of the United States. The Russians belong chiefly to the Slavonic race.

3. **Occupations.**—The majority of the population of Russia are devoted to agricultural pursuits, and dwell in villages spread thinly over the vast area of the empire. The only articles in the manufacture of which Russia can successfully compete with other countries are iron, leather, soap, sail-cloth, cordage, and tar.

4. **Commerce.**—The chief articles of export are wheat and other grains, timber, flax and flaxseed, wool, hemp, and cattle.

The most important customer which Russia has is Great Britain, and the chief export to that country is wheat. The imports come mainly from Great Britain and Germany. There is also with China a large overland trade, the principal item in which is tea.

The inland trade is carried on mainly at great annual fairs: that at Nijni Novgorod is the largest in the world.

5. **Government.**—The government is an absolute monarchy, under an emperor called the Czar (a corruption of the name Caesar), who is head both of Church and State.

6. **Cities.**—St. Petersburg, the capital, situated on a number of small islands in the Neva, is the metropolis of the empire. Moscow, formerly the capital, is the second city in size. Warsaw is the chief city of Polish Russia.

The principal seaports are Odessa on the Black Sea, the great southern emporium; Riga on the Baltic; and Cronstadt, the seaport of St. Petersburg, and the chief naval station.

SWEDEN AND NORWAY.

1. **Their Relation.**—Sweden and Norway, which are separate though adjoining countries, are united under one king.

2. **Government.**—The government of Sweden and Norway is a limited monarchy: each country has its own legislature.

In Sweden the legislative assembly is called the *Diet*; in Norway, the *Storting*.

3. **Natural Wealth.**—The natural wealth of Sweden and Norway is found in their mines, forests, and fisheries.

4. **Commerce.**—The principal exports of Sweden are timber, bar-iron, and grain; of Norway, timber and fish.

5. **Cities.**—Stockholm, the capital and largest city, is the principal seat of the foreign commerce. Gottenburg, next in size, is an important manufacturing and shipping point.

Christiania, the capital of Norway, is the chief seat of the foreign trade of that kingdom. Bergen, the second city, is the chief depot of the fisheries. Hammerfest is the most northern town in Europe.

DENMARK.

1. **Description.**—Denmark consists of the northern part of the peninsula of Jutland and of the adjacent islands at the entrance of the Baltic, the largest being Zealand and Fünen.

2. **Industries.**—Denmark is mainly an agricultural and grazing country; but many Danes are engaged in the fisheries, or in a seafaring life.

3. **Population, etc.**—The people of Denmark are of Teutonic origin, consisting of Danes, Germans, and Angles. The government is a limited monarchy.

4. **Cities.**—Copenhagen, on the island of Zealand, is the capital and chief commercial city. It is also noted for its great university and fine museum. Odense, on the island of Fünen, ranks second in importance.

Colonies.—The colonial possessions of Denmark include Iceland and Greenland (described under Danish America), together with several small islands in the West Indies.

SPAIN.

1. **Natural Wealth.**—Spain is rich in iron, lead, and quicksilver. It has a fertile soil, and a climate adapted to the growth of the vine, olive, orange, and fig.

2. **Industries.**—On the table-lands are pastured great herds of sheep, which produce large quantities of fine merino wool. The mulberry is extensively cultivated, and much silk is produced. The vine, also, is largely cultivated.

3. **The chief exports** are sherry-wine, wool, metals, fruits and dried fruits, silk, leather, and cork.



ST. PETER'S AT ROME.

4. **Cities.** — Madrid is the capital and largest city. Barcelona is the principal manufacturing and commercial city.

- I. The foreign possessions of Spain are : the Balearic Isles, in the Mediterranean ; Ceuta, in Africa, opposite Gibraltar ; Fernando Po and Annabon, off the coast of Guinea ; the Canary Isles, in the Atlantic ; Cuba, Porto Rico, and Pinos, which are West India Islands ; and the Philippines, Ladrões, and Carolinas, in the Pacific.
- II. Gibraltar, on a rock of the same name, belongs to the English, who have held it since 1704. This rocky fortress commands the entrance to the Mediterranean.

PORTUGAL.

1. **Industries.** — The leading pursuit in Portugal is the culture of the vine, from which port-wine is produced, and of the olive and semi-tropical fruits, such as oranges, lemons, and figs. The trade of Portugal is chiefly with Great Britain.

The single article wine constitutes more than two-thirds of the value of Portuguese exports to all countries. The other exports are cattle, cork, olive-oil, and oranges and lemons.

2. **Cities.** — Lisbon is the capital. Oporto is the chief seat of the trade in port-wine, to which it gives its name.

ITALY.

1. **Natural Wealth.** — The natural advantages possessed by Italy are a fertile soil finely adapted to the growth of semi-tropical productions, its extensive fisheries, valuable minerals, and admirable situation for commerce.

2. The leading industries are agriculture, manufacturing, and the fisheries.

Agriculture. — Wheat and the vine, olive, and mulberry are extensively cultivated throughout Italy. Oranges, lemons, figs, and other semi-tropical fruits, flourish in the southern part.

Manufactures. — The silk manufactures of Italy are the most important in Europe, and are one of the great sources of national wealth. Of the other manufactures, those of earthen-ware, straw goods, artificial flowers, olive-oil, and macaroni are of special importance.

The coast fishery employs large numbers of Italians. Tunny and anchovies are caught in immense quantities, and the latter are exported to all parts of the world.

3. **Exports.** — Among the characteristic exports of Italy are silks, olive-oil, wine and cordials, fruits, sulphur, and macaroni.

4. **Government.** — The government is a limited monarchy.

5. **Cities.** — Rome, the capital of Italy, is often called the "Eternal City." It was founded over twenty-five hundred years ago, and was for a thousand years the capital of the Roman power. Every part of Rome contains remains of temples, baths, tombs, arches, and columns that excite admiration by their massiveness and the beauty of their design. It is the residence of the Pope. The Church of St. Peter's is the finest building in the world. Naples, beautifully situated on the Bay of Naples, is the largest city. Milan is noted for its silk manufactures. Florence and Turin are famous for their museums of art. Genoa is an important commercial point. Venice is built on a hundred small islands, and is intersected by canals.

GREECE.

1. **Industries.** — A large part of the population is engaged in raising sheep and goats in the mountain districts ; agriculture is carried on in the rudest manner. In the "Isles of Greece" multitudes of sailors are trained.

2. **Exports.** — The leading exports are olive-oil, silk, honey, tobacco, currants, and other fruits.

3. **Cities.** — Athens is the capital and chief city. It is the residence of the king and court, has important educational institutions, and is a place of active local trade. Its seaport is the Piræus. Syra is the principal seat of commerce. Corfu and Zante are important cities.

I. In the time of the glory of Greece, Athens was the center of art and learning. It contained magnificent works of architecture, the ruins of which still exist. The most beautiful building was the Parthenon, which stood on the Acropolis, a considerable elevation in the city.

II. For several centuries previous to 1821 Greece was a part of the Turkish Empire ; the Greeks then revolted, and after a long struggle succeeded, with the assistance of the European powers, in establishing their independence. Greece is now a monarchy.



QUESTIONS ON THE MAP.

European Turkey.—What two straits and what sea form the dividing line between European and Asiatic Turkey? What three seas on the east? What country south? What sea on the west? Name some islands in the Archipelago. What large island south? What mountain-range in Turkey north of Greece? What famous mountain east of the Pindus Range? What great city in European Turkey is the capital of the Turkish Empire? What city north-west of Constantinople? On the Dardanelles? Near the mouth of the Vardar River?

The Danubian Principalities.—What five principalities north of European Turkey? Which three of these are independent? *Ans.* Roumania, Serbia, and Montenegro. Which are semi-independent? *Ans.* Bulgaria and Eastern Roumelia. What great river with its tributaries drains these divisions? Name the capital of Roumania. Of Bulgaria. Eastern Roumelia. Serbia. Montenegro.

EUROPEAN TURKEY.

1. **European Turkey** comprises the region from the Danubian Principalities southward to Greece.

2. **Industries.**—The soil is not extensively cultivated, and agriculture is carried on in a very rude manner. The raising of cattle and sheep is more general than the culture of the soil.

The Turks are not a manufacturing people, though they produce fine cotton and silk goods, and leather of a superior quality.

3. **Commerce.**—The commerce is considerable, but is mostly in the hands of foreigners. The chief exports are wool, tobacco, cotton, dried fruits, carpets, leather, horses, cattle, and hides.

4. **Race, etc.**—The Turks belong to the Mongolian type, and came from Asia in the fifteenth century. They are the ruling race, though they constitute but a small part of the population. The government is an absolute monarchy, and the emperor is styled the Sultan.

5. **Cities.**—Constantinople, the capital, on the Bosphorus, is one of the most finely situated of cities. Adrianople is the principal seat of the silk, cotton, and wool manufactures. Salonica is the second seaport in importance, and is noted for its cotton and leather manufactures.

BULGARIA AND EAST ROUMELIA.

Bulgaria and East Roumelia, till the Berlin treaty (1878), formed parts of the Turkish Empire, but are now independent in internal organization, though they must pay tribute to the Sultan of Turkey.

ROUMANIA, SERBIA, AND MONTENEGRO.

Roumania, Serbia, and Montenegro were, till 1878, parts of the Turkish Empire, but are now independent sovereignties.



ASIA

PHYSICAL MAP

SCALE OF MILES
1000
500
200
100
50
25
10
5
2
1
0

Lowlands Green ; Highlands Buff

Local Time P.M. when Noon on the Meridian of Greenwich
110° East 120° East 130° East 140° East 150° East 160° East 170° East

NORTH TEMPERATE ZONE TORRID ZONE
Latitude North Latitude South

LENGTH IN HOURS OF LONGEST DAY
11 12 13 14 15 16 17 18 19 20 21 22 23 24

PHYSICAL ASIA.

QUESTIONS ON THE PHYSICAL MAP.

- I. What great circle and what two zone circles cross Asia? In which zone is the greater part of Asia? In which zone is the northern part? The southern? What ocean north of Asia? What grand division of land east? What strait separates Asia from North America? What ocean east of Asia? South?
- II. Name six seas penetrating the eastern coast, which are arms of the Pacific Ocean. What great bay and sea are arms of the Indian Ocean? What two gulfs south-west of the Plateau of Iran? What gulf and sea between Africa and the Plateau of Arabia? What two border seas west of Asia? What interior sea in the western part of Asia? What isthmus connects Africa with Asia? What grand division of land is connected with Asia on the north-west? What is the most northerly cape of Asia? The most southerly cape of Continental Asia?
- III. What are the two great divisions of Asia as regards surface? What great plain in Lowland Asia? What smaller plain in this region? Where are the Steppes? The Tundras?
- IV. What small plateau in the western part of Highland Asia? What three great plateaus in Highland Asia? What smaller plateau north of the Plateau of Tibet? What plateau south of the Plateau of Mongolia? What mountain-range on the Plateau of Asia Minor? What ranges north of the Plateau of Iran? What ranges border the Plateau of Tibet? The Plateau of Mongolia? The Plateau of Turkestan? What two ranges in the north-eastern part of Highland Asia? In the south-eastern part? What is the loftiest mountain-system of Asia? *Ans.* The Himalaya Mountains. What is its highest peak? *Ans.* Mount Everest.
- V. What three great peninsulas in the southern part of Asia? Where is the Plain of Babylonia? Where are the Plains of India? What desert here? Name three deserts in the Plateau of Arabia. What waters partly surround the Plateau of Arabia? The Plateau of the Deccan? Indo-China?
- VI. What three great rivers drain the Plain of Siberia? What two flow into the Persian Gulf? What great river flows into the Arabian Sea? What two great rivers flow into the Bay of Bengal? What two drain the Plain of China? What river flows into the Channel of Tartary?
- VII. With what parallel does the line marking the northern limit of trees nearly coincide? Where is the line marking the northern limit of the cultivation of rice? What are the vegetable products of the central peninsula (India)? Of Ceylon? Of the Malay Archipelago? Of Indo-China? Of China? Of the Japan Islands? Of Arabia? What are the most important animals of Arabia? Of India? Of Indo-China? Of the Malay Archipelago? Of Highland Asia? Of Lowland Asia? Where are the salmon and sturgeon taken? Where are the pearl-fisheries? The whale-fisheries? Where is the principal mineral region of Asia? Name the chief minerals. Name the principal ocean currents flowing along the coasts of Asia.



PHYSICAL VIEW OF ASIA.

DESCRIPTION.

[Area, 17,212,000 square miles.
Population, 795,000,000.]

I. SITUATION, EXTENT, AND OUTLINE.

1. **Situation.**—Asia forms the main continental mass of the Eastern Continent, Europe and Africa being merely great peninsulas.

2. **Extent.**—Asia is the largest of the grand divisions, comprising one-third of the land surface of the globe.

3. **Outline.**—The coast is deeply indented on every side, though not to the same degree as that of Europe.

II. SURFACE.

4. **Natural Divisions.**—The surface of Asia is naturally divided into three parts: Lowland Asia, Highland Asia, and the great southern peninsulas.

5. **Lowland Asia** is principally comprised in the great Plain of Siberia and the Plain of Turkestan. It extends from Behring Strait in a south-westerly direction to the low level of the Caspian Sea.

6. **Highland Asia** includes the vast region between Lowland and peninsular Asia, and extends from the Plateau of Arabia in the south-west to Kamtchatka in the north-east.

7. **Its Character.**—In this belt are the loftiest mountain-chains and the most elevated plateaus on the globe. The great mass of Central Asia, comprising three-fifths of the whole, consists of high plateaus, intersected by

mountain-ranges, some of whose peaks rise to a height of five miles.

From the central plateaus the surface descends by a series of slopes to the vast Plain of Siberia on the north, the Plain of China on the east, and to the great peninsulas on the south.

8. **Mountain-Systems.**—The nucleus of the mountain-systems of Asia is on the Plateau of Thibet, called by the Orientals "the roof of the world." The principal mountain-chains radiating from this center are divided into four groups: (1) the Altai System; (2) the Hindoo Koosh; (3) the Himalayas; and (4) the Armenian Group.

The Altai System separates the Plain of Siberia from the Plateau of Mongolia.

The Hindoo Koosh, with its eastward extension the Kuen Lun Mountains, separates the Desert of Gobi from the Plateau of Thibet, and divides the Plain of Turkestan from the Plateau of Iran.

The Himalayas, from the extreme western point (where the Indus cuts through the system) to the Brahmapootra, are 2,000 miles in length, with an average breadth of nearly 200 miles. In the middle of the range rises the stupendous peak of Mount Everest (or Gaurisankar) 29,002 feet above the sea-level, with several others of slightly less elevation.

The Armenian Group, of which Mount Ararat is the culminating point, lies in parallel folds at the head of the Plateau of Asia Minor, between the Caspian, the Black, and the Mediterranean seas.

9. **Plateaus.**—The principal plateaus are: Thibet, from 15,000 to 16,000 feet in altitude; Mongolia and the Desert of Gobi; Iran (Persia), Asia Minor, and the Deccan.



ANIMALS OF ASIA

10. Rivers.—The rivers of Asia rank among the longest and largest on the globe.

11. Climate and Vegetation.—The climate of Asia is *continental*, that is, it is subject to great extremes of heat and cold; and the temperature is not modified to so great an extent as in Europe by the influence of the ocean.

Asia is divided into three zones of climate and vegetation,—the southern or tropical, the middle or temperate, and the northern or cold. The principal characteristics of each are presented in the following table:—

COUNTRIES.	CLIMATE.	VEGETATION.
Southern Zone . . { The southern peninsulas, Arabia India, Indo-China, and part of China.	Tropical.	Rice, cotton, sugar-cane, and tropical fruits; the poppy (opium) and spices; the palm, bamboo, and huge banyan.
Central Zone . . . { 1. The vast plateau region, including most of China. 2. Turkestan. 3. Afghanistan. 4. Persia. 5. Turkey.	Marked by the four seasons, with regular changes from one to the other.	Tea, wheat, oats, barley, rye, and the fruits of the Temperate Zone. Forest trees: oak, pine, etc.
Northern Zone . . { 1. The greater part of Siberia. 2. Kamtchatka.	Marked by long, cold winters, and short summers.	The usual scanty vegetation of the Arctic Zone.

12. Animals.—Among the characteristic animals of Asia are the tiger, elephant, and rhinoceros; the tapir, buffalo, and camel; many species of monkeys, pheasants, and peacocks; together with the crocodile and the python, a great snake.

13. Civilization.—The extreme northern zone is thinly inhabited by hunters and fishermen, and the great central plateaus can support only a nomadic or semi-civilized population. The fertile plains of China and tropical Asia are the great seats of population, and are rich in natural resources. In this region, civilized nations have existed for thousands of years; but this civilization has long been stationary, and the swarms of common people are ignorant and degraded.



POLITICAL ASIA.

I.

QUESTIONS ON THE POLITICAL MAP.

Asiatic Russia.—What are the divisions of Asiatic Russia?
Ans. Siberia, Russian Turkestan, and Trans-Caucasia. Bound each division. What place on Okhotsk Sea? What place on the border of China? Name four other places in Siberia. What is the capital of Trans-Caucasia?

Chinese Empire.—Bound the Chinese Empire. What are its principal divisions? What is the capital? Name four large seaports. What British port near Canton? What large city north of Canton? What is the capital of Tibet?

Japan.—Which is the largest of the Japan Isles? What large island north of it? What two large islands south? What is the capital? What seaport south of Tokio? What two other cities in Hondo? What two in Kiushiu?

Indo-China.—What are the three principal divisions of Indo-China? Bound each. Name the capital of each. What city in the south belongs to France? Where is British Burmah? What city in this division?

British India.—Bound British India. What island in the south? What is the capital, and on what river is it? What two cities in the north? Name a seaport on the eastern coast. On the western coast. What city in Ceylon?

Afghanistan and Beloochistan.—Bound these countries. Name the capital of each.

Persia.—Bound Persia. What is its capital? What city in north-west? What seaport on the Persian Gulf?

Arabia.—Bound Arabia. What division in the central part? In the south-east? Name the capital of Nedjed. Of Oman.

Asiatic Turkey.—Bound Asiatic Turkey. What two divisions on the Red Sea? What city on the fortieth meridian? What city north of Jerusalem? On the Tigris? On the Ægean Sea?

Malaysia.—What group in the northern part of Malaysia belongs to Spain? What is its capital? What are the four largest islands of Malaysia? What European country has extensive possessions in them? *Ans.* Netherlands. What is the capital of the Dutch possessions?

II.

Islands.—*In what direction is it from the nearest land? By what waters surrounded?*

Ceylon? Nova Zembla? Hondo? Cyprus? New Siberia? Sumatra? Saghalien? Kiushiu? Formosa? Kurile Islands? *Peninsulas.*—*From what part of Asia does it project?*

Arabia? Hindostan? Indo-China? Corea? Kamtchatka? *Capes.*—*Where is it? Into what water does it project?*

North-East? East? Lopatka? Cambodia? Romania? Negrais? Pt. de Galle? Comorin?

Mountains.—*In what part of Asia are they?*

Taurus? Elburz? Hindoo Koosh? Kuen Lun? Thian Shan? Himalaya? Altai? Yablonoi? Khingan?

Seas, Gulfs, and Bays.—*Where is it?*

Red? Arabian? South China? East China? Yellow? Japan? Okhotsk? Behring? Gulf of Aden? Persian? Siam? Tonquin? Pechele? Penjinsk? Anadir? Bay of Bengal?

Straits.—*What waters does it connect?*

Behring? Channel of Tartary? La Perouse? Macassar? Malacca? Manaar? Ormuz? Bab-el-Mandeh?

Lakes.—*Where is it? What is its outlet?*

Balkash? Baikal? Tengri Nor? *Rivers.*—*Where does it rise? In what direction, and into what, does it flow?*

Tigris? Euphrates? Amoo? Indus? Ganges? Brahmapootra? Irrawaddy? Mekong? Yang-tse-Kiang? Hoang Ho? Amoor? Lena? Yenisei? Obi?

Cities.—*In what part of the country? How situated?*

Smyrna? Jerusalem? Mecca? Aden? Bagdad? Teheran? Cabul? Herat? Bokhara? Bombay? Madras? Calcutta? Singapore? Bankok? Mandalay? Canton? Hong Kong? Shanghai? Peking? Kioto? Osaka? Yokohama? Tokio?

REFERENCE TABLE OF ASIATIC COUNTRIES.

COUNTRIES.	AREA.	POPULATION.	CAPITALS.	NAME OF LARGEST CITY.	POPULATION OF LARGEST CITY.	FORM OF GOVERNMENT.
Asiatic Russia { Siberia Central Asia Trans-Caucasia }	Square Miles. 6,288,000	3,911,000 5,936,000 5,759,000	Irkutsk and Tobolsk. Tiflis. Peking. Tokio. Hué. Bankok. Mandalay. Calcutta. Cabul. Kelat. Tehran. Muscat. Riad. Constantinople.	Irkutsk. Tashkend. Tiflis. Peking. Tokio. Hué. Bankok. Mandalay. Bombay. Cabul. Kelat. Tabreez. Muscat. Riad. Smyrna. Manila.	33,800 100,000 104,000 1,659,000 1,140,000 50,000 500,000 99,000 773,000 60,000 15,000 120,000 49,000 150,000 130,000	Russian possession. Russian possession. Russian possession. Absolute monarchy under an emperor. Monarchy. Ruler called the <i>Mikado</i> . Absolute monarchy. Absolute monarchy. Absolute monarchy. Colonial dependency of Great Britain. Viceroy. Various independent khanates. Various independent khanates. Monarchy. Ruler called the <i>Shah</i> . Despotism. Despotism. Absolute monarchy. Ruler called the <i>Sultan</i> . Native governments and European possessions.
Chinese Empire.	4,555,000	380,000,000				
Japan	147,600	35,925,000				
Indo-China { Kingdom of Anam Kingdom of Siam Empire of Burmah }	627,200	21,000,000 5,759,000 4,000,000				
British India	1,425,700	255,000,000				
Afghanistan	278,000	4,000,000				
Beloochistan	106,000	350,000				
Persia	636,000	7,650,000				
Arabia { Oman Nedjed }	968,000	3,700,000				
Asiatic Turkey	729,000	16,357,000				
Malay Archipelago	775,000	35,187,000				

DESCRIPTION.

ASIATIC RUSSIA.

I. **Divisions.** — Asiatic Russia comprises the vast region of Siberia, together with Russian Turkestan and Trans-Caucasia.

1. **Siberia**, larger in area than Europe, occupies the whole of the great Northern Plain of Asia. It consists almost entirely of steppes and marshes, across which the Obi, Yenesei, and Lena Rivers wind their sluggish way to the Arctic Ocean. The climate is very cold, except in the southern part; and winter reigns more than half the year.

II. **Russian Turkestan** extends from the Altai and Thian Shan Mountains westward to the Caspian Sea.

III. **Trans-Caucasia** includes the country lying between the Caucasus Mountains (a dividing-line between Europe and Asia) and Asiatic Turkey. The Caucasus range rises above the snow-line, and Elburz, its highest summit, reaches 18,572 feet. In the southern part, on the border of Persia and Turkey, is Mount Ararat, 17,200 feet high.

2. **Siberia.** — Siberia has numerous animals whose furs are valuable, as the seal and the ermine; its waters abound in fish; and the rich mines yield gold, silver, copper, platinum, and iron. There is a large overland tea-trade with China.

Of the population, of about four millions, three-fourths consist of Mongolian tribes, savage and degraded; while Russian exiles and their descendants, together with Russian troops and officials, constitute the remainder.

Irkutsk, Tobolsk, and Tomsk, are the chief places. Kiachta is the entrepot of trade with China.

3. **Russian Turkestan.** — Russian Turkestan contains several petty states called Khanates: the most important are Bokhara and Khiva, with cities of the same names. Bokhara, from its caravan trade, is an important point in Central Asia.

4. **Trans-Caucasia.** — The people of Trans-Caucasia belong to the Caucasian race, and are much celebrated (especially the women) for their beauty. The trade consists in the export of wine, silk, furs, honey, and cattle, in exchange for arms, salt, and European manufactured goods.

Tiflis is the capital and largest city.

CHINESE EMPIRE.

1. **Extent and Population.** — The territory of the Chinese Empire is larger than the whole of Europe, and its population (about 400,000,000) numbers one-third that of the globe.

2. **Divisions.** — This vast empire includes China Proper, with Mantchooria, Mongolia, Soongaria, Thibet, and Corea.

3. **Inhabitants.** — The inhabitants of the Chinese Empire all belong to the Mongol race, though they present great differences of appearance in the several parts of the empire.

4. **The leading industries** are agriculture, comprising the production of rice and millet for food, and of tea and silk for domestic use and export; and manufactures, which are confined principally to cotton cloths, silks, shawls, porcelain, and carved ivory.

Tea. — The tea-plant is an evergreen shrub growing five or six feet high. The leaves are gathered, and dried in shallow pans placed over charcoal fires. Tea has been used in China as a drink from time immemorial. It was introduced into Europe about two hundred years ago, and has become a universal beverage.

Silk. — The art of rearing silk-worms and of unraveling the threads of cocoons was first practiced by the Chinese. From China the silk culture extended to Hindostan, thence to Greece, next to Italy, France, and Spain,

and finally to California, completing the circuit of the land surface of the globe. Silk is a common article of dress in China for men as well as for women. Chinese silk is all woven in hand-loom.

5. **Commerce.** — The internal trade is immense, and is carried on by means of the great rivers and long canals. The foreign trade is limited chiefly to exporting tea, silk, rice, etc.

6. **Government and Religion.** — The government of China is an absolute and despotic monarchy. The emperor is regarded as the representative of Deity, and as the supreme master of the lives and fortunes of his subjects. The religion most prevalent is Buddhism, there styled the religion of *Fo*.

Civilization. — The Chinese are a people remarkable for their extreme dislike to any kind of innovation. They appear to have attained at a very early period to a certain degree of civilization, and were acquainted with many discoveries, arts, and appliances which have been thought modern, as the mariner's compass, the use of gunpowder, the arts of printing, paper-making, etc. But they have advanced little beyond the condition in which they were two thousand years ago. Education is compulsory, and learning is the necessary qualification for obtaining office, or arriving at distinction of any kind. But the education is merely one of form and routine, in which the memory is the principal object of cultivation.

7. **Subject Countries.** — Thibet, Mongolia, and Mantchooria are vast and thinly inhabited regions, chiefly occupied by pastoral tribes whose chiefs own, in many cases, only a nominal subjection to the Chinese government. Corea is a separate kingdom under its own sovereign, but tributary to China.

8. **Cities.** — Peking, the capital and largest city, is unpaved and undrained, with filthy, narrow streets, and low, mean houses. Shanghai is the first, and Canton the second city, in foreign commerce. Yo-Chow is the chief seat of the domestic commerce, and Kin-te-ching of the porcelain manufacture.

JAPAN.

1. **Japan** is an island empire.

Japan (in the native language Dai Nippon) consists of four large and many small islands.

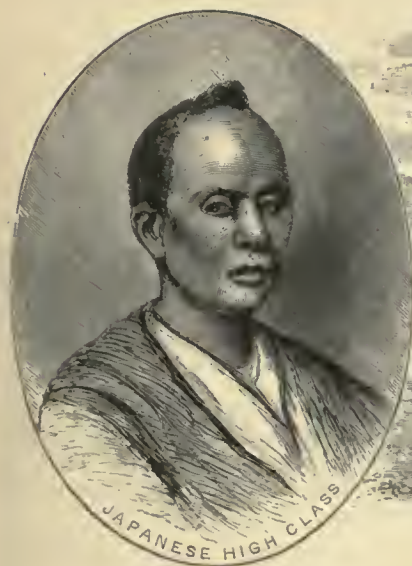
2. **Occupations.** — Agriculture, horticulture, and various manufactures, are carried on with much skill. The principal exports are tea and silks, lacquered ware, bronzes, and wood carvings.

3. **Government.** — The government is a constitutional monarchy, under an emperor called the Mikado.

4. **Civilization.** — The Japanese are the most highly civilized and the most progressive people of the Mongol race. They are now rapidly introducing railroads, telegraphs, and improved machinery of all kinds, and have public and scientific schools under European and American instruction.

Japan, like China, kept itself aloof for ages from other nations; but in 1854 the United States sent a large naval expedition, under command of Commodore Perry, who induced the Japanese Government to make a treaty by which the ports of Simoda and Hakodadi were opened for trade, and by which United States consuls were allowed to reside in Japan. A little later similar privileges were allowed to England, France, and Russia.

5. **Cities.** — Tokio is the capital and largest city, and the chief seat of the domestic trade. Yokohama, its seaport, is the chief seat of the foreign trade. Kioto and Osaka are large and important cities.



INDO-CHINA.

1. Divisions. — Indo-China is chiefly divided between three native states, — the Kingdom of Burmah, the Kingdom of Siam, and the Empire of Anam.

In addition to these countries, Indo-China includes British Burmah, Lower Cochin-China (a dependency of France), and several petty native states.

2. Inhabitants. — The Indo-Chinese form a race intermediate between the Hindoos and the Chinese. They are below both the Hindoo and Chinese in industrial skill, and have made less progress in civilization. In the southern part of the peninsula the people belong to the Malay race.

3. Government. — The native governments are of the most despotic kind, the laws sanguinary, and the mass of the people in a state of absolute slavery.

Buddhism is the prevailing religion.

4. Commerce. — All the Indo-Chinese countries carry on an extensive trade with China, and also with British India. This is chiefly a maritime traffic, though the Burmese have a large overland intercourse with China.

The principal exports are timber and ornamental woods, raw silk and cotton, gums, wax, cardamoms, and edible birds'-nests.

5. Cities. — The principal cities are Bangkok, the capital and largest city of Siam; Mandalay, the capital of Burmah; and Hué, the capital of Anam. Saigon is the chief seat of French power in Indo-China.

In Bangkok, the largest city of Indo-China, half the population live on bamboo rafts, arranged like streets.



ASIATIC RACES.



BRITISH INDIA.

1. Divisions. — British India comprises the greater part of Hindostan (generally called India), British Burmah, and the Straits Settlements.

I. The name Hindostan, strictly speaking, is confined to the Great Plain of the Ganges and Indus, but is commonly applied to the whole of India.

The parts not under British dominion include three independent states, — Cashmere, Nepal, and Bootan, — and various "Protected States."

II. British Burmah consists of an extensive tract along the west coast of Indo-China.

III. The Straits Settlements comprise the three territories of Penang island, Malacca, and Singapore, and form a separate British colony.

2. Hindostan, or India, the central peninsula of Asia northward to the Himalaya Mountains, has an area half as great as that of the United States.

3. Inhabitants. — India is inhabited by about 255,000,000 of people, most of whom are Hindoos, and belong to the Caucasian race.

4. Government. — India is under the rule of a Viceroy appointed by the Queen of England, who is "Empress of India."

The British maintain their power by a standing army made up mostly of natives, or Sepoys, commanded by English officers. Brahminism is the prevailing religion; but there are many Buddhists, and some Mohammedans and Parsees. The sacred books of the Brahminic religion, called the Vedas, were written at least twenty-five hundred years before the Christian era.

5. Occupations. — Agriculture is the leading industry. The great staples are rice, which is the principal article of food, and cotton, jute, silk, opium, and indigo, which are raised for export.

Fine silk and cotton fabrics, with shawls and various articles of ornamental attire, constitute the chief products of Indian manufacturing skill.

6. **Commerce.**—The importation of manufactured goods (principally from England), and the export of raw produce (chiefly cotton, opium, indigo, and rice), are the distinguishing features of Indian commerce.

The recent introduction of railroads has greatly aided in developing the inland trade.

7. **Cities.**—Calcutta is the capital of British India, and the chief seat of commerce. Bombay is the largest city, and the principal port for the English and French lines of steamers by way of the Suez Canal. Madras is the principal city on the south-east coast. Singapore (in the Straits Settlements), on the island of the same name, is one of the most important commercial stations in Southern Asia.

The possession of Singapore and the two other Straits Settlements gives the British the command of the Strait of Malacca, the direct line of communication with China and Japan.

AFGHANISTAN AND BELOOCHISTAN.

1. **Description.**—These countries occupy a high desert plateau, traversed by mountain-ridges, and dotted with oases. The fertile parts comprise several khanates, inhabited by a settled population; but the majority of the people consists of fierce, wandering, and warlike tribes, who live in tents, and depend for subsistence mainly on their herds of horses, goats, asses, and camels.

2. **Cities.**—Cabul is the capital and largest city of Afghanistan. Herat is a great center of caravan traffic, and is important from its situation on the main route from Western Asia to India. Kelat is the capital and largest place in Beloochistan.

PERSIA.

1. **Description.**—The greater part of Persia is a plateau, marked by sandy and salt deserts; but along the Persian Gulf and the Caspian Sea is a lowland region.

2. **Inhabitants.**—Of its population of five millions, about one-third are wandering shepherds; the remainder are a tolerably civilized people, who are engaged in agriculture and manufactures.

3. **Commerce.**—The chief exports are silks, shawls, carpets, pearls, rose-water, and asafetida.

4. **Government.**—The government is a monarchy, under a ruler called the Shah, and is less despotic in its administration than most of the other Asiatic governments.

Considerable progress has recently been made in civilization in Persia: railroads and telegraphs have been introduced, and efforts to promote education have been made.

5. **Cities.**—Teheran is the capital; Tabreez, the chief seat of commerce; Bushire, the chief seaport.

ARABIA.

1. **Physical Features.**—Arabia consists of an interior plateau with fertile valleys, of extensive deserts in the north and south, and of a narrow belt of lowland along the greater part of the coast, mostly arid, but containing some productive regions.

2. **Inhabitants.**—The Arabs are divided between dwellers in towns, and inhabitants of the desert.

The latter, called Bedouins, constitute numerous tribes, each under its own chief, or sheik. They lead a wandering life, changing the site of their encampment according to the necessity of finding pasturage for their flocks. The Bedouins look with contempt upon the settled pursuits of those who live in towns.

3. **Divisions.**—The settled or civilized part of Arabia includes several political divisions, of which the most important are Hedjaz and Yemen on the western coast, Oman on the south-eastern coast, and Nedjed in the interior.

I. Hedjaz, or the land of pilgrimage, is a province of the Turkish Empire. It contains the two sacred Mohammedan cities, Mecca and Medina.

II. Yemen, occupying the remainder of the Red Sea coast, is the most fertile part of Arabia. It is under Turkish dominion.

III. Oman, occupying the region between the Persian Gulf and the Indian Ocean, is divided among several native rulers, the most powerful of whom is the Sultan of Oman (commonly called the Imam of Muscat).

IV. Nedjed is the most important of the native states, and is ruled by a Sultan. It produces the finest breed of Arabian horses.

4. **Commerce.**—The principal exports of Arabia are coffee, dates, gum-arabic, myrrh, frankincense, some aromatic and medicinal drugs, and pearls.

The traffic of the country is considerable, and is carried on by means of caravans. The camel is the principal beast of burden employed.

5. **Cities.**—Mecca and Medina are the two principal cities in Hedjaz.

Mecca was the birthplace of Mohammed, and Medina the place of his death. Mohammed, the great religious teacher of the Arabs, lived in the sixth century, A.D., and wrote his doctrines in the *Koran*, the sacred book of his followers. All "true believers" are enjoined to visit Mecca at least once in their lives. Caravans of pilgrims from all parts of Arabia, from eastern Asia, and from northern Africa, resort each year to this holy city for the purpose of combining trade with religion.

Sana is the chief city in Yemen. Mocha, formerly a considerable port, is now in ruins. Muscat is the capital of Oman, and Riad of Nedjed.



KHYBER PASS, BETWEEN INDIA AND AFGHANISTAN.

ASIATIC TURKEY.

1. **Situation.** — Asiatic Turkey comprises the western part of Asia, and includes the seat of many ancient nations, among which are Phœnicia, the Holy Land, the states of Asia Minor, Assyria, Babylonia, and Chaldæa.

2. **Divisions.** — Asiatic Turkey is divided into various provinces ruled by pachas, or governors.

3. **Inhabitants.** — The inhabitants differ widely in race, language, and religion. The majority are Mohammedans, principally Turks in Asia Minor, and Arabs in the provinces to the south. The Christians are, for the most part, Greeks and Armenians.

4. **Industries.** — Though the soil is highly productive, agriculture is little practiced, except near large towns, the country being infested with bands of robbers. The manufactures of silk, cotton, and leather are of considerable importance; but, generally speaking, there is great stagnation of industry and enterprise, and civilization is at a low ebb.

5. **Commerce.** — The chief exports are opium, tobacco, attar-of-roses, figs, dates, silk, and leather.

The imports of Asiatic Turkey are chiefly from Great Britain, and include cotton and woolen goods, hardware, glass, and metals. The means of internal communication are very defective: there are few regular roads, and travelers have to unite themselves in companies or caravans for mutual protection.

6. **Cities.** — Smyrna, in Asia Minor, is the largest city in Asiatic Turkey, and the chief emporium of the Levant (countries bordering the eastern shore of the Mediterranean). Damascus, the largest city in Syria, is the great depot of the caravan trade. Beyrout, the port of Damascus, is the most flourishing of the Syrian towns. Bagdad, on the Tigris, is famed for its bazaars. Jerusalem, called by the modern inhabitants *El-Koods* ("the Holy"), is the most prominent point of interest in the Holy Land.

Jerusalem, which is situated on a rocky plateau, contains about fifteen thousand inhabitants. The several religious sects — Christians, Turks, and Jews — occupy different quarters of the city, which is surrounded by a wall, and entered by four gates.

MALAY ARCHIPELAGO.

DESCRIPTION.

1. **Situation.** — The Malay Archipelago, or Malaysia, includes the numerous islands and island-groups situated between south-eastern Asia and Australia. They are entirely within the tropics.

Among the vast multitude of islands in Malaysia the largest and most important are, —

Borneo, 270,000 square miles.	Java, 45,000 square miles.
Sumatra, 150,000 square miles.	Philippine Islands, 100,000 square miles.
Celebes, 72,000 square miles.	Moluccas, 25,000 square miles.

2. **Physical Features.** — These islands are all mountainous, abounding in active and extinct volcanoes, and are subject to frequent earthquakes. Great heat and moisture, the former tempered by the sea-breezes, are the characteristics of the climate, and consequently the vegetation is varied and luxuriant.

3. **Plants and Animals.** — The forest-trees yield a variety of valuable woods, such as ebony, teak, sandal-wood, etc., and of useful gums, of which India-rubber and gutta-percha are the most important. Among food-plants are the cocoa and sago palms, and the banana, arum, yam, and mango. Among the wild animals are the elephant, tiger, rhinoceros, buffalo, orang-outang, monkeys, and birds of gorgeous plumage.

4. **Population.** — The population of the Malay Archipelago is about 30,000,000. The natives belong to the Malay race, but present many varieties. They are mostly Mohammedans, and are divided into numerous petty states. Many of the native races possess written languages; but their literature is very inferior to that of either the Chinese or the Hindoos.

The natives are strongly addicted to maritime pursuits, and are in many cases inveterate pirates, though a great deal of the peaceful commerce of the Archipelago is also in the hands of the Malay nations. These people are of a brown color, with lank hair; they

wear little clothing, live chiefly on rice, fruits, and fish, and dwell in bamboo houses, perched on pillars to raise them above the water. All classes smoke tobacco, and chew the betel-nut. Their boats and canoes are to the Malays what the camel is to the Arab, or the horse to the wandering Mongol; and the necessities of their situation have made them fishermen, navigators, and traders. Their warfare, like their ordinary pursuits, is carried on upon the water; and their long *prahus*, or war-canoes, filled with armed warriors, are the terror of the peaceful frequenters of these seas.

5. **European Possessions.** — The Philippine Islands belong to Spain; but most of the Archipelago belongs to the Dutch. The whole of the Moluccas, Java, and Sumbawa, with parts of Sumatra, Celebes, Borneo, and Timor, are in their possession. They constitute what are called the Dutch East Indies.

Historical. — Early in the seventeenth century (1602), the Dutch East India Company was organized for the purpose of monopolizing the trade of the East India Islands. This company soon grew rich and powerful out of their enormous profits. The Dutch fitted out fleets of armed merchantmen that defied the Malay pirates, and contended successfully with the navy of Spain. The prosperity of Holland reached its highest point; and Amsterdam, Antwerp, The Hague, and other ports, were thronged with the ships of all nations. The Dutch supplied the world with spices, cloves, nutmegs, camphor, sugar, coffee, rice, indigo, cotton, dyes, drugs, and cabinet-woods. Other European nations also engaged in profitable traffic with this bountiful region of the earth, which to this day is a great center of interest in the commerce of all nations.

6. **Exports.** — Java exports great quantities of coffee and rice; the Moluccas supply the world with nutmegs, cloves, and other spices; Sumatra furnishes India-rubber and gutta-percha; and the Philippines produce sugar, hemp, and tobacco. Diamonds are found in Borneo, and gold, tin, and copper are widely distributed.

7. **Cities.** — Manila, the largest city in the Archipelago, is the capital of the Spanish possessions, and the chief emporium of the Philippines. Batavia, in the Island of Java, is the capital of the Dutch East Indies.



AFRICA

PHYSICAL & POLITICAL

SCALE OF MILES

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61

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87

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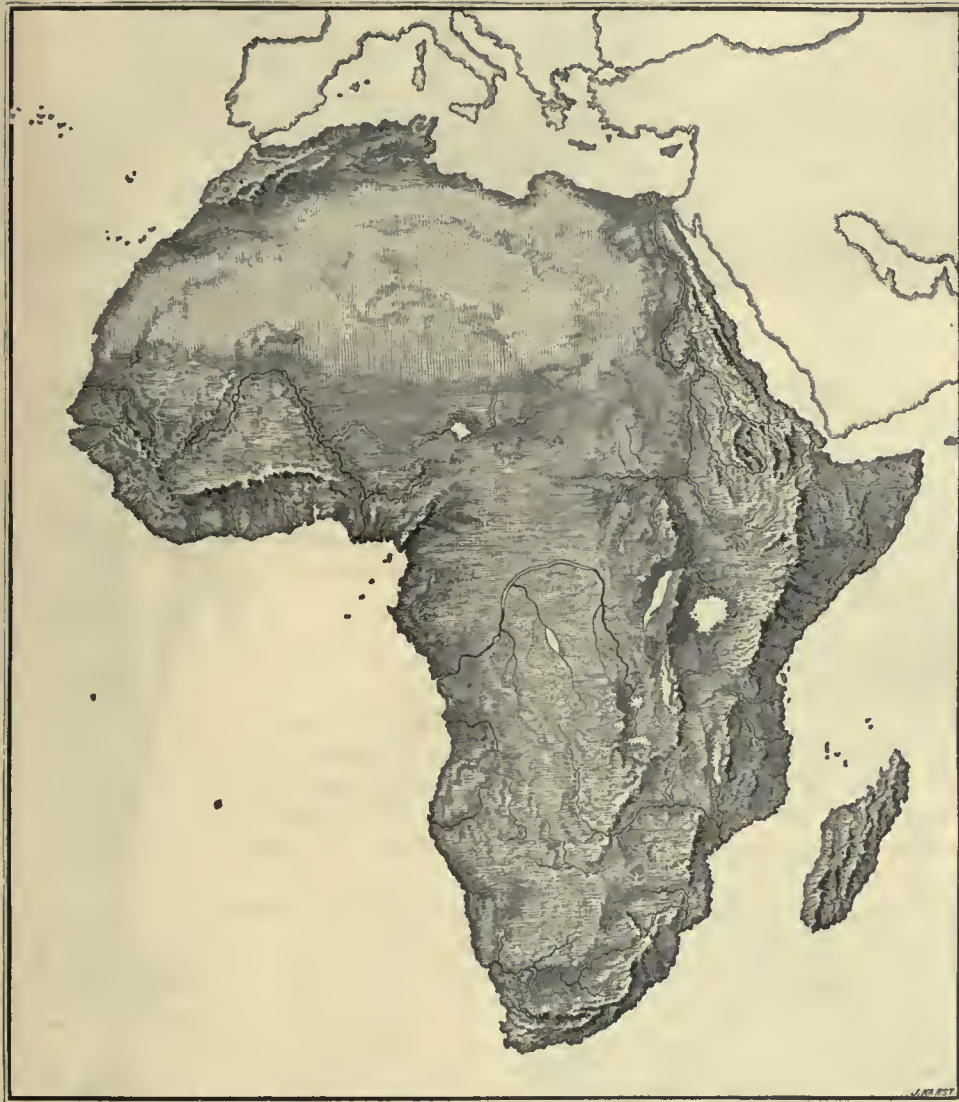
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Washington

8

AFRICA.



PHYSICAL VIEW OF AFRICA.

[Area, 11,514,000 square miles. Population, 206,000,000.]

QUESTIONS ON THE MAP.

I. PHYSICAL.

What geographical circles cross Africa? In which zone is the greater part? In which zone is the northern part? The southern part? What two seas north and east? What ocean east? West? What part of the United States is in the same latitude as the northern part of Africa? (See map of the United States, pp. 28, 29.) What grand division north of Africa? East of Africa? In what latitude is Algiers? In what latitude is Cape Agulhas? How much farther south is Cape Horn? (See map of South America, p. 62.) When it is noon at Washington, what time is it at Cairo? When it is noon at London, what time is it at Cairo? What isthmus connects Africa with Asia? What canal crosses this isthmus? What waters does it connect? What places at its termini? What strait connects the Mediterranean Sea with the Atlantic Ocean? What gulf in the western part? What channel separates Madagascar from the mainland? What gulf in the north-eastern part? What is the most northerly cape of Africa? The most

westerly? The most southerly? What famous cape near the southern extremity? What is the most easterly cape? Name the principal mountain-ranges that border the African coast. What plateau in the eastern part? What two peaks near the Equator? What extensive desert in the northern part? Name two other deserts. What two large lakes are crossed by the Equator? Name four lakes south of the Equator. What lake in Soudan? What great river flows from the equatorial lakes into the Mediterranean? What river drains the southern part of Central Africa? What great river drains the central part? What great river drains Soudan? What parallel crosses the region of greatest heat? What are the principal vegetable products of the Barbary States? Of the Nile valley? Of the west coast? What can you say of plants and animals in Central Africa? What are the principal animals of the eastern coast? In what parts of Africa are the largest wild animals found? Where is the lion found? The crocodile? The camel? The ostrich? The gorilla? In what regions are domestic animals most numerous? Name and locate the minerals of Africa. Name the principal plants, animals, and minerals of Madagascar. What are the principal ocean-currents flowing along the west coast? The east coast?

II. POLITICAL.

Name the four Barbary States. What are the capitals of Morocco? What is the capital of Algeria? Of Tunis? Of Tripoli? What country occupies the Nile valley? What are its principal divisions? Which city is the capital? What two ports north of Cairo? What country east of Egypt? What is the capital? What coast country east of the equatorial lakes? What is its capital? What island division east of Mozambique Channel? Its capital? What British possessions in the southern part? What is the capital of Cape Colony? Name some of the divisions of Upper Guinea. What vast natural division south of the Barbary States? South of Sahara? South of Soudan?

III. REVIEW QUESTIONS.

Capes. — Where is it? Into what water does it project? Agulhas? St. Mary? Bon? Good Hope? Verde?
Lakes. — Where is it? What is its outlet? Tchad? Tanganyika? Victoria Nyanza? Nyassa? Albert Nyanza?
Rivers. — Where does it rise? In what direction, and into what, does it flow? Orange? Niger? Nile? Zambesi? Congo or Livingstone?
Divisions Natural or Political. — Where is it? Morocco? Liberia? Sahara? Egypt? Nubia? Cape Colony? Zanguebar? Soudan? Abyssinia? Algeria? Egyptian Soudan? Natal? Madagascar?
Cities. — In what part of the country? How situated? Cape Town? Fez? Cairo? Gondar? Algiers? Alexandria? Timbuctoo? Tananarivo? Ujiji? Port Said? Suez? Freetown? Tripoli? Khartoom?



DESCRIPTION.

I. SIZE AND SITUATION.

1. Africa ranks next to Asia in size. It occupies the entire width of the Torrid Zone, its northern section extending into the North Temperate, and its southern section into the South Temperate Zone.

Africa, surrounded on all sides by the ocean, except where it is united to Asia by the Isthmus of Suez, is *naturally* a great southern peninsula of the Eastern Continent; but, by cutting a canal across the Isthmus of Suez, it has been rendered an island-continent.

II. DIVISIONS.

2. Africa is naturally divided into four parts, — Northern Africa, the Sahara, Soudan and Central Africa, and Southern Africa.

3. **Northern Africa** extends from the Mediterranean to the border of the Sahara, or Great Desert. In the northern part of this division is the Atlas range.

4. **Sahara.** — The Sahara, the most extensive desert on the globe, commences to the southward of the Atlas system, and extends to the border of Soudan, with a breadth, in some parts, of more than a thousand miles. It forms a plateau of moderate elevation.

5. **Soudan and Central Africa** extend from the southern border of the Sahara to the Kalahari Desert. The whole region is a low plateau, bordered to the westward by a rim of coast mountains, and to the eastward by the Plateau of Abyssinia and the Mountains of the Moon.

The Plateau of Abyssinia is the most elevated in Africa; but the Mountains of the Moon contain the loftiest summits. The peaks of Kenia and Kilimanjaro (20,000 feet high), though under the equator, are covered with perpetual snow.

6. **Southern Africa.** — Southern Africa includes the fertile section south of Kalahari Desert.

III. RIVERS AND LAKES.

7. **Rivers.** — The African rivers are few in number, though some of them are noted for their great length. The most important are the Nile, Niger, Congo or Livingstone, and Zambesi.



8. **Lakes.** — In the equatorial region of Africa is a series of lakes rivaling in size the Great Lakes of North America. The largest of these are lakes Albert Nyanza, Victoria Nyanza, and Tanganyika: they have all become known within late years, and have only recently been explored.

IV. VEGETATION, ANIMALS, ETC.

9. **Vegetation.** — Tropical Africa has abundant rains and a luxuriant vegetation. The baobab, a remarkable tree with a trunk often thirty feet in diameter, is found on the higher lands of Central Africa; the alluvial plains on the western coast are covered with thickets of mangroves and other trees; and on the borders of the equatorial region are groves of mimosas and acacia, from the latter of which trees gum-arabic is obtained. Palms are numerous: the oil-palm is found only on the coast of the Gulf of Guinea; while south of the Atlas region, and in the oases, is found the date-palm, which furnishes a large part of the food of the inhabitants. Other characteristic plants are the papyrus, or paper-plant, the lotus, and the senna-plant.

10. **Animals.** — Africa is the land of wild beasts. The elephant, hippopotamus, and rhinoceros; the zebra, elk, camel, and giraffe; springboks, antelopes, and buffaloes; the gorilla, chimpanzee, mandril, and other baboons and monkeys; the lion, panther, and leopard, — these are only the more prominent of the quadrupeds which roam through the forests, and over the plains of Africa.



ANIMALS OF AFRICA.

The ostrich inhabits the sandy deserts, and parrots and paroquets, with other birds of beautiful plumage, are innumerable. Lizards and venomous serpents of almost every species abound in all parts, and the Nile is noted for crocodiles.

11. **Population.** — The population of Africa is estimated at two hundred millions. Of these the greater part are negroes, divided into numerous tribes.

12. **Divisions.** — The principal political divisions of Africa are the Barbary States, Egypt and Abyssinia, the Sahara, Central Africa, Soudan, and the European Colonies.

BARBARY STATES.

1. **Divisions.** — The Barbary States are Morocco, an independent kingdom governed by a Sultan; Algeria, a French colony; together with Tunis and Tripoli, which are dependencies of the Turkish Empire.

2. **Commerce.** — The principal exports of the Barbary States are wool, goat-skins and leather, gum, wax, olive-oil, and dates. Besides this trade, considerable commercial intercourse is carried on with the natives of Central Africa by means of caravans which cross the Sahara.

3. **Cities.** — The leading cities are Morocco and Fez, the capital cities of Morocco; Algiers, the capital of Algeria; and Tunis and Tripoli, respectively the leading cities of the states of the same names.

EGYPT AND ABYSSINIA.



STREET SCENE IN CAIRO.

1. **Divisions.** — Egypt includes Egypt Proper, Nubia, and Egyptian Soudan. It occupies the Valley of the Nile from the equatorial lakes to the Mediterranean Sea.

2. **The Nile.** — The River Nile is the most striking physical feature in Egypt: without this beneficent stream, the whole country would be a hot and arid desert. Nearly all the productive and habitable parts are comprised in its valley and delta.

1. The Nile valley is, owing to the annual inundation of the Nile, one of the most fertile regions on the globe. These inundations begin about the middle of June, attain their greatest height in September, and subside about the end of October. Before its subsidence, the muddy river-water deposits a fertilizing sediment, half an inch thick, over all the land, and thus annually renews the productiveness of the soil.

11. Egypt is a country of vast antiquity, and the Egyptians are the oldest nation of which we have a recorded history. They were a highly civilized people at the time of Abraham, more than two thousand years before Christ. The whole course of the Nile is dotted with remains of ancient monuments and works of art, such as pyramids, temples, obelisks, palaces, tombs, etc. The interiors of the tombs are frescoed in the most beautiful manner, and all the monuments are covered with picture-writing called hieroglyphics.

3. **Government.** — Egypt forms a part of the Turkish Empire, and is ruled by a viceroy called the Khedive.

4. **Occupation.** — The principal occupation is agriculture. Wheat, barley, maize, rice, and cotton form the chief crops; tobacco, sugar, and indigo are produced to a considerable extent.

5. **Commerce.** — Grain and cotton are largely exported; and, in addition to these products of the country, great quantities of gold-dust, ivory, and ostrich-feathers, are brought by caravan from the interior of Africa. The Suez ship-canal is of immense commercial importance.

By the Suez Canal the Atlantic and Indian Oceans are connected *via* the Red Sea, thus saving the extended voyage around the Cape of Good Hope. The total length of the Canal from Port Said, on the Mediterranean, to Suez, its terminus on the Red Sea, is about one hundred miles.

6. **Population, etc.** — The population is a great mixture of races, — Copts, Arabs, Turks, Greeks, etc. The prevailing religion is Mohammedanism.

7. **Cities.** — Cairo, the capital, is the chief seat of trade and manufactures. Alexandria is the chief seaport.

8. **Abyssinia.** — Abyssinia is an elevated plateau, ridged by rugged mountains, between which are fertile valleys covered with luxuriant vegetation. The country is divided between several petty independent states, inhabited by warlike and semi-barbarous tribes. The people, numbering about four millions, profess a sort of Christianity, but are immoral and degraded. The commerce is unimportant.

Gondar is the largest city. Massuah, on the Red Sea, the chief seaport, belongs to Egypt.

THE SAHARA.



CROSSING THE GREAT DESERT.

1. **Description.** — The Sahara is a parched, sandy, and desolate waste, occupying one-fourth of the surface of Africa, or an area equal to about two-thirds that of Europe. The only habitable parts are the oases: these are fertile spots covered with date-palms, which offer their grateful shade, refreshing water, and sweet fruit, to the weary caravans.

2. **The inhabitants** probably do not number over 100,000 souls. They comprise several tribes, — Moors, Tuaregs, and Tiboos, — wanderers who feed their flocks and herds on the scanty herbage as they pass from oasis to oasis, and who subsist on the milk of their camels, on dates from the oases, and on what they can plunder from the caravans.

Numerous caravans, sometimes consisting of thousands of camels, cross the desert, by various routes, from the Barbary States to Central Africa, occupying from thirty to ninety days in the journey. It would be utterly impossible for man to traverse the Sahara without the aid of the camel, which is the only animal that can eat the coarse herbage growing in the desert, and the only animal, that, without water, can pass long periods of time on the burning sands.



CENTRAL AFRICA.

1. Situation. — Central Africa comprises the vast region represented in the accompanying map. It is only during recent years that this portion of the dark continent has become known to the civilized world.

Explorations. — The series of bold explorations which has resulted in largely increasing our knowledge of the geography of interior Africa began about thirty years ago. In 1852 the celebrated Dr. David Livingstone traversed South Africa, and, after a four-years' journey of eleven thousand miles, descended the Zambesi River to its mouth. In 1856 Burton and Speke landed at Zanzibar, and two years later, after a journey of a thousand miles, discovered Lake Tanganyika. Speke immediately pushed his explorations to the northward, and discovered the magnificent lake to which he gave the name Victoria Nyanza. (N'yanza, meaning "the lake," is the native name of this body of water.) Victoria Lake was in 1861 revisited and further explored by Speke, accompanied by Capt. Grant. Three years later, Sir



CAPITAL OF MTESI, KING OF UGANDA.

Samuel Baker discovered the great lake to which he gave the name of Albert Nyanza, traced its connection with the Victoria Nyanza, and beheld, emerging from the former, the majestic Nile, whose sources had been vainly sought for two thousand years.

From 1865 to 1871 Dr. Livingstone made extensive surveys of the region of the great lakes, exploring lakes Bangweolo, Nyassa, and Tanganyika. For two years subsequent to May, 1869, at which time Dr. Livingstone was at Ujiji, no tidings were received from him, and he was supposed to be dead; but in 1871 Stanley found him, alive and well, at the last-named place. Soon afterward, Livingstone undertook another series of explorations towards the west, but died in the midst of these in 1873. In 1874 Lieut. Cameron, a man distinguished for his scientific attainments, and boldness as an explorer, starting from Nyangwe, the most westerly point reached by Dr. Livingstone, performed the remarkable exploit of forcing his way to the Atlantic, which he reached at Benguela in the following year. The latest chapter in the long history of African discovery is that which recounts the manner in which Stanley, starting from the head waters of the Livingstone River, sailed down its entire course to the sea.

2. **Physical Features.**—This vast region contains the system of equatorial lakes, including the Victoria Nyanza and Albert Nyanza, which are the sources of the Nile. It is drained by the two great rivers, the Congo or Livingstone, and the Zambesi. Central Africa receives an abundant rainfall, and is characterized by fertile soil and luxuriant vegetation. It is the home of some of the largest African animals.

3. **Inhabitants.**—Central Africa is inhabited by a teeming population of many millions of blacks, divided into numerous tribes and kingdoms. These differ greatly in respect to their social state, from the semi-civilized people of Uganda to the cannibals of Wemya.

Though the various peoples of Central Africa differ much in social condition, they all possess the elements of a rude civilization. They live in villages composed of huts, cultivate the soil, plant gardens of fruit-trees, possess cows, sheep, goats, and poultry, and manufacture cotton cloth, earthen-ware, leather, and metal goods. The cut on the preceding page represents the capital of the King of Uganda.

SOUDAN.

1. **Soudan.**—Soudan (in Arabic *Belad-es-Soudan*, or Land of the Blacks) is a broad belt across Africa from Senegambia to southern Egypt.

This region consists of extensive plains, which, owing to the copious rains, are covered with luxuriant vegetation. It includes the basin of Lake Tchad and the chief part of the River Niger. Its climate is tropical, but not unhealthful.

2. **Divisions and Inhabitants.**—Soudan is divided into numerous semi-barbarous states. The principal cities are Timbuctoo, Sokoto, Kano, Yako, and Kuko. The inhabitants consist of many millions of blacks, with a considerable number of Fellatahs, a mixed race, partly of negro and partly of Berber descent.

The Fellatahs are Mohammedans, as are also many of the negro tribes: the rest are Pagans.

3. The commercial productions are gold-dust, ivory, and ostrich-feathers.

REPUBLICS AND COLONIES.

REPUBLICS.

1. Africa has two petty republics,—Liberia and the Orange Free State.

2. Liberia, originally founded for the free negroes and emancipated slaves of the United States (during the time when slavery existed in our country), was

made an independent negro republic in 1848. The capital is Monrovia.

3. **Orange Free State** is a Dutch republic.

EUROPEAN POSSESSIONS.

4. The following are the principal European colonies or trading towns on the coasts:—

Senegambia, where the French have a foothold. Sierra Leone is a settlement established by the British as a refuge for liberated slaves. Freetown is the chief place.

Guinea.—The English, Spaniards, and Portuguese have ports and "factories" along these coasts.

Cape Colony, Natal, Transvaal, and Griqua-Land are British colonies of considerable importance. Cape Town is the largest city.

Sofala and Mozambique.—The Portuguese control the coast of these countries. The city of Mozambique is the chief seat of their power.

ISLANDS.

5. **Madagascar**, the largest island of Africa, has great natural resources. The ruling people are of Malay stock. They have long practiced such arts as smelting, weaving, and rope-making, and are skillful in the manufacture of jewelry, carpets, and cutlasses. Tantanarivo is the capital.

6. **Mauritius**, a small volcanic island east of Madagascar, belongs to Great Britain. Reunion Island belongs to France.

7. **St. Helena**, twelve hundred miles distant from the African coast, is a small island, noted as the place of the banishment and death of Napoleon Bonaparte.



OSTRICH-FARMING IN SOUTH AFRICA.

OCEANICA.

QUESTIONS ON THE MAP.

Melanesia.—What is the largest island of Melanesia? What strait separates Papua from Australia? What two islands east of Papua? What group south-east of New Britain? What are the most southerly groups? Name other islands in Melanesia. What island belongs to France? Measure by the scale of miles the length of New Guinea.

Australasia.—In what hemisphere is Australia? What tropic crosses it near the middle? By what waters is it sur-

rounded? What gulf in the northern part? What great indenting of the sea in the southern part? Where is Cape York? North-west Cape? What parts are mountainous? What are the principal branches of the Darling River? Is Australia well supplied with rivers? State the location of the following colonies: Victoria, New South Wales, South Australia, North Australia, Queensland, Alexandra Land, Western Australia. Where is Melbourne? Sydney? Adelaide? What seaport in the north? On the western coast? What island south of Australia? What is its principal city? What two

islands a thousand miles east of southern Australia? What is the name of the British colony occupying these two islands? In what zone is it? What is the capital?

Polynesia.—What group of islands near the meridian of 180°? To what power do they belong? What are the three principal islands of the Sandwich group? What is their latitude and longitude? What is the capital? On what island is it? On what island is the volcano of Mauna Loa? What group of islands in longitude 150°? What is the principal island of the Society group? To what country does it belong?





PLANTS AND ANIMALS OF OCEANICA.

DESCRIPTION.

1. Divisions. — Oceanica includes the Malay Archipelago, Australasia, Melanesia, and Polynesia.

The Malay Archipelago has been described under Asia.

AUSTRALASIA.

2. Divisions. — Australasia comprises the continental island of Australia, Tasmania, New Zealand, and, according to some geographers, also includes the group of islands called Melanesia, extending from New Guinea to New Caledonia.

Australia, Tasmania, and New Zealand are British colonies.

3. Australia. — Australia, the greatest of islands, is more than two-thirds as large as the United States. The interior, which is mostly unexplored territory, is a low plateau, a considerable part of it desert. The rivers are few, the most important being the Murray and its tributaries.

4. Climate. — The northern half is in the Torrid Zone, and has a tropical climate: the southern section has the temperature of Southern Europe. Long periods of drought occur, while at certain seasons the rains fall with great violence.

As Australia is situated in the southern hemisphere, the seasons are the opposite of ours: thus it is hottest at Christmas, and coldest in our midsummer. The Australian farmer sows his seed when we are gathering our harvests, and the reverse.

5. Vegetation. — The forest vegetation is peculiar, the native trees being evergreens, and some shedding their bark instead of their leaves. Acacias, gum-trees (the *eucalypti*), and gigantic tree-ferns, are the chief forest-trees.

6. Animals. — The wild animals are quite as peculiar as the vegetation. The largest is the kangaroo, which is a pouched animal. A very remarkable animal is the ornithorhynchus: it is a water animal, shaped like a beaver, has web feet, and a bill like that of a duck.



SCENE IN POLYNESIA.

7. Political Divisions. — Australia is divided into seven provinces or colonies, namely: 1. Victoria; 2. New South Wales; 3. Queensland; 4. South Australia; 5. Alexandra Land; 6. North Australia; 7. West Australia.

8. The government in each colony consists of a Governor appointed in England, a Legislative Council, and a Legislative Assembly elected by the people.

9. Natural Wealth. — Its rich mines of gold, copper, iron, and coal, and its great extent of agricultural and grazing lands, constitute the natural wealth of Australia.

10. Occupations. — The leading industries are mining, agriculture, and stock-raising. In the production of gold and wool it ranks among the leading countries of the world.

11. Commerce. — Australia being a colony of Great Britain, its trade is mostly carried on with the mother-country. It exports wool, gold, copper, hides, tallow, and preserved meats, and receives in exchange the cotton and woollen goods, iron and hard ware of England.

12. Cities. — Melbourne, the capital of Victoria, is the great commercial and monetary center of Australia. Sydney, in New South Wales, is the second city in importance. Adelaide, the chief city of South Australia, is largely engaged in manufacturing and trade. Brisbane is the chief city of Queensland. Perth is the chief city of West Australia.

13. Tasmania and New Zealand. — Tasmania and New Zealand are separate British colonies. Agriculture and sheep-raising are carried on in both colonies: in addition, the whale-fishery is followed in Tasmania, and gold-mining in New Zealand. Hobart Town is the capital and chief city of Tasmania; Wellington, of New Zealand.

MELANESIA.

New Guinea, the largest island of Melanesia, ranks next to Australia as the largest island on the globe. The Melanesian islands are in general highly productive, yielding tropical food-plants and valuable timber-trees. The native inhabitants belong to the Papuan negro race.

The Dutch claim authority over the western half of New Guinea. The French have a penal settlement in New Caledonia.

POLYNESIA.

1. Polynesia, meaning "many islands," is the name given to the small islands and groups in the Pacific Ocean east of Australasia and Malaysia, and south of the Tropic of Cancer.

2. Products. — These islands combine the three things requisite for luxuriant vegetation; namely, heat, moisture, and a fertile soil. The principal indigenous food-plants are the bread-fruit, yam, sweet-potato, taro-root, arrow-root, banana, plantain, and cocoanut. Coffee, sugar, cotton, rice, and, in fact, most of the fruits and grains of the tropical and temperate zones of Asia, have been introduced into these islands.

3. Native Races. — The South-Sea Islanders are seafaring people, and display great skill and boldness in the management of their canoes. Their natural intelligence shows them to be capable of a high degree of civilization; but they have been rapidly dying out since they came in contact with the white race. The whole population of all the Polynesian Islands does not exceed half a million.

4. Sandwich Islands. — The Sandwich Islands, the most important group, are situated just a little south of the Tropic of Cancer, between 150° and 160° west longitude. The largest island is Hawaii, which is about the size of Connecticut. These islands form an independent nation governed by a king or queen. The entire population of the kingdom does not exceed 60,000. Most of the Sandwich-Islanders profess Christianity, and are partly civilized. The principal exports of the Sandwich Islands are sugar, molasses, rice, cocoanut-oil, cocoanuts, and oranges. Honolulu, the capital and principal seaport, is a resort for the whaling-vessels of the North Pacific.

Hawaii is noted for its great volcanic peak, Mauna Loa, 13,000 feet high. Kilauea, a lower lateral crater of Mauna Loa halfway up the mountain-side, is nine miles in circumference, and is sometimes filled with a fiery lake of red-hot lava.

5. The Society Islands contain a population of about 20,000, the majority of whom have been converted to Christianity. The Island of Tahiti is under French rule. The various foreigners settled in these islands carry on some commerce, consisting chiefly in the export of pearl-shells, sugar, cocoanut-oil, and arrow-root.

6. The Feejee Group comprises over three hundred islands, of which about one-half are inhabited. These islands are under British rule. The number of islanders is estimated at 200,000. The Feejeeans are among the most warlike and most skillful of the Polynesians. All of them were formerly cannibals; but many have now given up the practice of eating human flesh.

THE POLAR REGIONS.

1. The Polar Regions are those parts of the earth's surface north of the Arctic Circle and south of the Antarctic Circle. They consist of the Arctic region and the Antarctic region.

I. ARCTIC REGION.

2. Early Discoveries.—It is quite certain, that, as early as the tenth century A.D., settlements were made by the Norsemen in high latitudes on the coast of Greenland. But our knowledge of what was accomplished by these voyagers is vague, and our interest in Arctic exploration begins with the series of expeditions for the discovery of a "North-west passage," undertaken soon after the discovery of America by Columbus.

3. North-west Passage.—The object of those who undertook the search for a North-west passage was the discovery of a route on which, sailing westward around the northern extremity of the American continent, they might reach the East Indies. It was with the view of finding a westward way to Cathay (China) that Columbus undertook his first voyage of discovery. When, however, it was found that a New World barred access to the Orient, daring navigators began to try if they could not open a pathway by the circumnavigation of North America.

The first of these attempts was made by Cabot in 1498, and this was followed during the next three hundred and fifty years by a long series of baffled efforts, till at last, in 1854, Capt. McClure established the fact of a continuous passage by water from Baffin Bay to Behring Strait. In the following paragraphs will be found brief notes of a few of the more important in a long series of heroic endeavors that too often received only the martyr's reward, — death.

Explorations.—In 1498 Sebastian Cabot (who, with his father, had in the preceding year discovered the mainland of North America) undertook a voyage expressly to find "that hidden secret of nature," the direct passage to Asia. He proceeded northward from Labrador, about half-way up Davis Strait, till icebergs compelled him to change his course, and give up the attempt.

In 1576 Frobisher made three voyages to the north-west, exploring, among other waters, the channel now known as Frobisher Strait. In 1585-7 Davis explored portions of the coast of Greenland, and the strait which bears his name. In 1610 Hudson sailed up the strait named after him, into Hudson Bay; but his crew mutinied, and set him adrift to perish. In 1616 Baffin explored the bay bearing his name, and entered the mouth of Lancaster Sound. In 1789 Mackenzie, in a land expedition, discovered and traced to its mouth the river called after him. In 1819 Parry traversed Barrow Strait, and penetrated as far north as the Parry Islands.

In May, 1845, the ill-fated expedition of Sir John Franklin set sail in search of the North-west passage, in the ships *Erebus* and *Terror*. These vessels were last seen in July of that year, by a whaling-ship, about the middle of Baffin Bay. Several years having elapsed with no tidings of this expedition, numerous parties were despatched during the next ten years in search of Sir John Franklin and his associates. Among these expeditions may be mentioned those of Kane, De Haven, Ross, Belcher, Englefield, McClintock, and McClure; the latter officer, in command of the ship *Investigator*, being the first explorer who traversed the entire region from Behring Strait to Baffin Bay. (See map.) In 1855 McClintock

discovered proofs that all of Sir John Franklin's party had perished from hunger and exposure, and documents showing that Sir John was the first discoverer of the North-west passage.

4. North-east Passage.—Very soon after the first efforts to find a North-west passage were begun, a series of expeditions having in view the opening of an ocean route to the East Indies by sailing around the northern coasts of Europe and Asia was undertaken by various European nations.



MAP OF THE ARCTIC REGION.

Details.— Among these may be mentioned the expeditions of Sir Hugh Willoughby (1553), who penetrated to Nova Zembla, but was driven back by ice, and perished with his crew; of Barentz (1594-6), a Dutch explorer, who died near a headland of Alaska; of Henry Hudson (1608-9), who vainly attempted the North-east passage; and of Behring (1741), who set sail from a harbor in Kamtchatka, but perished during the voyage.

5. Its Discovery.— The practicality of a north-east passage from western Europe to eastern Asia was demonstrated in 1878-9 by the Swedish explorer, Professor Nordenskjöld.

Details.— Professor Nordenskjöld set sail from Gottenburg, Sweden, in July, 1878, and, after rounding North Cape, held his course eastward to W. long. 177°. Here his vessels wintered in the pack-ice until midsummer of 1879, when they were released. Resuming the voyage, he sailed through Behring Strait into



In 1860 Dr. Hayes, who had accompanied Kane, organized an expedition under his own command. The vessel was *nipped* in the ice about lat. 78°; but from there various journeys were made northward by way of Grinnell Land. Hayes, with one companion, reached lat. 81° 35', the most northerly land reached up to that time. Further progress was impossible on account of rotten ice.

In 1871 Capt. Hall, in the "Polaris," pushed northward up the western shore of Smith Sound, reaching 82° 16' in Robeson Channel, where the vessel was beset with ice. Hall started with a traveling party; but little was accomplished, and he died on his return from the sledging expedition.

In 1875 Capt. Nares, in the vessels "Alert" and "Discovery," left England commissioned to attain the highest possible northern latitude. Passing through Smith Sound and Kennedy and Robeson channels, they reached a broad ice-covered sea, where the expedition wintered in lat. 82° 27'. The men were in total or partial darkness for a hundred and forty-two days. Numerous well-equipped exploring parties were sent out, and one of these,



the Pacific Ocean, and reached Yokohama in September, 1879.

6. Polar Expeditions.— Among the aims of Arctic exploration that of reaching the North Pole has long been a leading one; but it is only in recent times that well-equipped expeditions having that object in view have been sent out. The principal of these are the American expeditions under Kane, Hayes, and Hall, and the English expedition under Capt. Nares.

Details.— In 1853 Dr. Kane, who had formed the opinion that around the North Pole was a great open sea, headed an expedition to verify his theory. The expedition wintered in lat. 78° 37'. During the following spring various sledging tours to the north were made. On one of these Kennedy Channel was discovered, and the party penetrated as far as Cape Constitution (in Washington Land) in lat. 81° 27'. The open channel abounded with animal life, such as bears, birds, and seals.



ANIMALS OF THE ARCTIC REGION.

under Commander Markham, reached the latitude of 83° 20' 30", the most northerly point thus far attained.

II. ANTARCTIC REGION.

7. Extent.— Very little is known of the Antarctic region. The land surface is small, and is loosely though commonly spoken of as the Antarctic Continent.

Details.— Various exploring expeditions, American and foreign, have been sent out for purposes of Antarctic discovery, most of them in the first half of the present century. It is now regarded as extremely doubtful if there exists in these regions any such extent of land-surface as would deserve to be called a continent. In 1841 an English expedition under Capt. Ross explored the steep and rocky coast known as Victoria Land, discovering an active volcano, which he named Mount Erebus. No important discoveries have been made in Antarctic seas since the American expedition under Wilkes in 1842. So far as is known, the Antarctic Continent, so called, is devoid of human population.



QUESTIONS ON THE MAP.

North America.—What eight Atlantic ports of North America can you name? What five Gulf ports? What three ports in the West Indies? What two ports on opposite sides of the Isthmus of Panama? Name four seaports on the Pacific coast of North America. What two shipping points on the St. Lawrence? Name three commercial centers in the Mississippi Valley. What are the principal steamer routes from the Atlantic ports of North America? From the Gulf ports? From the Pacific ports? What is the shortest steamer route between

North America and Europe? The longest? What is the length of the sailing route from New York to Cape Town? What is the length of the steamer route from New York to Havana? From New York to Aspinwall? By how many submarine cables has North America communication with Europe? What steamer line from New Orleans to Europe? How are the West Indies connected with the telegraphic system of the United States? By what two steamer routes does San Francisco communicate with Eastern Asia? A steamer from New York lands merchandise at Aspinwall: how does this merchandise reach San Francisco? By what

railroad route or routes does tea brought by the Pacific mail-steamers to San Francisco reach the Atlantic seaboard?

South America.—What two South American ports are on the Caribbean Sea? Name seven Atlantic ports of South America. Five Pacific ports of South America. What steamer connections has South America with the United States? With Europe? From what South American ports do sailing-vessels make the voyage to Europe? What are the termini of the submarine cable between South America and Europe? What telegraphic connection between Havana and Valparaiso?



Europe.—What is the most northern seaport of Europe? What are the principal continental European seaports on the Atlantic or its arms? Name even seaports of the British Isles. What are the chief seaports of the Mediterranean? Of the Black Sea? What are the principal steamer routes from Europe to North America? To the West Indies? To South America? How many miles does a sailing-vessel make in the voyage from Liverpool to San Francisco? What class of vessels circumnavigate Africa? What is the shortest steamer route between the ports of Western Europe and Eastern Asia? What canal do steamers pass

through? What telegraphic communication between England and Bombay? England and Singapore? England and Hong Kong? England and Melbourne? What telegraphic communication has Russia with its Pacific coast ports?

Asia.—What is the principal seaport on the Mediterranean? In Southern Arabia? What three ports on the Arabian Sea? What two on the Bay of Bengal? What port in Ceylon? What four ports in Indo-China? What are the chief ports of China? Of Japan? What peninsula of Asia is crossed by a railway? What are the principal caravan routes of Asia?

Africa.—Name three African ports on the Mediterranean. Six on the Atlantic coast. What seaport at the southern extremity of Africa? What six on the eastern coast? What are the principal caravan routes of Africa?

The Archipelagoes.—What port in Java? In the Philippine Islands? What are the principal seaports of Australia? Of New Zealand? What port in Tasmania? In the Sandwich Islands? In the Society Islands? At what ports do steamers touch in going from Sydney to San Francisco? What steamer route between Australia and South America?

COMMERCIAL CENTERS AND THEIR EXPORTS.

Acapulco	SILVER, COPPER, SKINS, COCOA, INDIGO, MAHOGANY, DRUGS.	Liverpool	IRON, CUTLERY, EARTHEN-WARE, COTTONS, CHEMICALS, COAL.
Adelaide	WOOL, WHEAT, COPPER.	London	BRITISH MANUFACTURES, FOREIGN PRODUCTS.
Aden	COFFEE, DATES, DRUGS, PEARLS.	Madeira Isles	WINES, FRUITS, NUTS.
Alexandria	GRAIN, COTTON, DATES, DRUGS.	Malaga	ORANGES, WINE, RAISINS.
Algiers	GRAIN, CATTLE, CORK, COPPER, DATES.	Manila	SUGAR, TOBACCO, CIGARS, HEMP, COFFEE, INDIGO.
Amsterdam	BUTTER, CHEESE, SILK MANUFACTURES, SPICES.	Marseilles	WINE, BRANDY, SARDINES, SILK, FRUITS.
Archangel	FLAX, HEMP, SKINS, FOREST-PRODUCTS, TALLOW.	Mauritius Island	SUGAR, VANILLA.
Astrakhan	FISH, OIL, LAMB-SKINS.	Melbourne	COLD, WOOL, WINE.
Auckland	WOOL, GOLD, LUMBER, FLAX, CATTLE-PRODUCTS.	Mobile	COTTON, FOREST-PRODUCTS.
Azore Isles	WINE, ORANGES, LEMONS.	Monrovia	PALM-OIL, WAX, PEPPER, GROUND-NUTS.
Bahia	SUGAR, TOBACCO, DIAMONDS, NUTS.	Montevideo	CATTLE-PRODUCTS.
Baltimore	TOBACCO, WHEAT, PETROLEUM, OYSTERS, COAL.	Montreal	BREADSTUFFS, FOREST-PRODUCTS, DAIRY-PRODUCTS.
Bankok	RICE, SPICES, SUGAR.	Morocco	GOAT-SKINS, WOOL, BEANS, MAIZE, OLIVE-OIL.
Barcelona	WINES, CORK, IRON, COPPER, QUICKSILVER, DRIED FRUITS.	New Orleans	COTTON, SUGAR, TOBACCO.
Batavia	SUGAR, COFFEE, RICE, INDIGO, TOBACCO.	New York	GRAIN, VARIED MANUFACTURES, PETROLEUM, PROVISIONS.
Bergen	LUMBER, FISH, ICE.	Odessa	WHEAT, TALLOW, SALT, TIMBER.
Bombay	COTTON, OPIUM, COFFEE, SPICES, SUGAR, INDIGO.	Okhotsk	FURS, FISH-OILS.
Bordeaux	WINES, BRANDIES, PRESERVED FRUITS AND MEATS.	Oporto	WINE, OLIVE-OIL, FRUITS, CORK.
Boston	VARIED MANUFACTURES, PREPARED FOODS, ICE.	Panama	COTTON, COFFEE, CINCHONA-BARK, TOBACCO.
Bremen	LINEN AND WOOLEN GOODS, GLASS, WINE, BEER, GRAIN.	Para	CAOUTCHOUC, CACAO, RICE, SUGAR, TAPIOCA, DRUGS.
Buenos Ayres	WOOL, CATTLE-PRODUCTS.	Paris	VARIED FRENCH MANUFACTURES AND PRODUCTS.
Busbire	SILK, SHAWLS, CARPETS, WOOL, DRUGS, DRIED FRUITS.	Pernambuco	COTTON, COFFEE, SUGAR.
Calcutta	COTTON, OPIUM, RICE, TEA, JUTE, INDIGO, SUGAR.	Philadelphia	IRON, COAL, PETROLEUM, MACHINERY.
Callao	GUANO, SALTPETER, CINCHONA-BARK, WOOL, SUGAR.	Portland, Me. . . .	LUMBER, STAVES, CASKS, ETC.
Canary Isles	COCHINEAL, FRUITS, VEGETABLES, SODA.	Portland, Or. . . .	WHEAT, FLOUR, SALMON, LUMBER.
Canton	TEA, SILK, CHINESE WARES.	Quebec	SHIPS, LUMBER, GRAIN, FISH.
Cape Town	WOOL, HIDES, OSTRICH PLUMES, WINE, COPPER, DIAMONDS.	Rangoon	RICE, TEAK-WOOD, BAMBOO, COTTON.
Cartagena	CINCHONA-BARK, COFFEE, COTTON, TOBACCO.	Reykjavik	OIL, FISH, EIDER-DOWN, FEATHERS.
Cayenne	SUGAR, COFFEE, COTTON, PEPPER, AND OTHER SPICES.	Riga	GRAIN, HEMP, FLAX, LUMBER.
Charleston	COTTON, RICE.	Rio Janeiro	COFFEE, GOLD, DIAMONDS, TOBACCO, HIDES.
Chicago	GRAIN, PORK, LUMBER.	Rome	PICTURES, STATUES, AND OTHER OBJECTS OF ART.
Cincinnati	GRAIN, PORK, FLAX, TOBACCO.	San Francisco	WHEAT, WOOL, WINES, PRECIOUS METALS.
Constantinople	GRAIN, TOBACCO, DRUGS, FRUITS, CARPETS, SILKS.	Savannah	COTTON, LUMBER.
Dantzic	GRAIN, LUMBER, BEER, WOOLENS, LINENS.	Shanghai	TEA, SILK, COTTON, CHINESE WARES.
Galveston	COTTON, GRAIN, WOOL.	Sierra Leone	PALM-OIL, TIMBER, GINGER, PEPPER, BEESWAX, IVORY.
Genoa	SILKS, OLIVE-OIL, WINE AND SPIRITS, FRUITS.	Singapore	TIN, SPICES, RATTANS, GUTTA-PERCHA.
Georgetown	SUGAR, COFFEE, COTTON, INDIGO, SPICES.	Smyrna	FIGS, SPONGES, RAW SILK, CARPETS, DRUGS.
Glasgow	IRON AND COTTON MANUFACTURES, IRON SHIPS, CHEMICALS.	Stettin	GRAIN, OIL-CAKE, WOOL, BEER.
Guayaquil	COCOA, CINCHONA-BARK, DYE-STUFFS.	St. Johns, N.F. . . .	COD-FISH, SEAL-SKINS, COD AND SEAL OIL.
Halifax	DRIED FISH, COAL, GYPSUM, GRINDSTONES, LUMBER.	St. Louis	GRAIN, MACHINERY, MANUFACTURES.
Hamburg	LINEN AND WOOLEN GOODS, GLASS, WINE, BEER, GRAIN.	St. Paul de Loanda	WAX, IVORY.
Havana	SUGAR, COFFEE, TOBACCO, CIGARS.	St. Petersburg	TALLOW, FLAX, HEMP, LEATHER, FURS, SKINS.
Havre	ARTICLES OF TASTE AND FASHION, WINE, BRANDY, OIL.	Sydney	WOOL, CATTLE-PRODUCTS, TIN, COPPER, GOLD.
Hong Kong	TEA, RAW SILK, CHINESE WARES.	Tamatave	CAOUTCHOUC, CATTLE, HIDES, WAX, EBONY-WOOD.
Honolulu	SUGAR, COCONUT-OIL.	Trieste	GRAIN, FLOUR, LUMBER, WINE, OIL.
Irkutsk	(FROM CHINA TO RUSSIA) TEA, FRUITS, PORCELAIN, SILK.	Valparaiso	GRAIN, COPPER, SILVER, WOOL, HIDES.
Jamaica	SUGAR, RUM, MOLASSES, COFFEE, ALLSPICE.	Vera Cruz	COFFEE, VANILLA, HIDES, TOBACCO, COCHINEAL, INDIGO.
La Guayra	COFFEE, COCOA, INDIGO, CATTLE-PRODUCTS.	Victoria	FURS, LUMBER, COAL.
Lisbon	WINE, OLIVE-OIL, FRUITS, SALT.	Vienna	LEATHER GOODS, GLASS-WARE, MUSICAL INSTRUMENTS.
		Yakutsk	FURS.
		Yokohama	SILK, TEA, RICE, JAPANESE GOODS.

QUESTIONS ON THE TABLE.

What are the principal grain ports of the world? From what ports is wheat shipped? Flour? Rice? What cities export sugar? Tea? Coffee? Cocoa? Fruits? Wines? Beer? Olive-oil? From what ports do we receive drugs? What ports of the Old World send out spices? What ports of the New World? Through what European port do we receive the spices of the Dutch East Indies? *Ans.* Amsterdam. What cities export salt? Fish? Dairy-products? Tobacco?

Enumerate the cotton ports of the world. From what ports are cotton goods shipped? What cities send out wool? What are the principal centers in the export of woollen goods? From what ports is silk procured? In

what part of the world are these ports? Whence do we obtain linen goods? What ports are named as sending out shawls? Leather and leather goods? Furs? Where do ostrich plumes come from?

What ports can you name from which lumber is exported? Whence do we procure ornamental woods? Rattans? Bamboo? What ports are named as shipping forest-products? Caoutchouc? Gutta-percha? Cork? Petroleum? Pearls? Sponges? Cattle-products? Guano? Eider-down?

Name several ports through which iron and iron manufactures are distributed. What ports are named as shipping coal? In what countries, therefore, is coal largely found? Copper? Tin? What cities export the precious metals? Soda? Gypsum? Judging from the places of export, in what country are diamonds found?

A SYSTEM OF MAP-DRAWING.

BY E. A. AND A. C. APGAR.

This system of Map-Drawing is substantially the same as that originally prepared by the authors and published in 1865. Such improvements have been introduced, however, as the practical workings of the system have shown to be important.

SUGGESTIONS TO TEACHERS.

THE study of geography consists principally in a study of the form and locality of the features of the earth's surface. Maps give a much better idea of the form and locality of geographical features than can be obtained from descriptions only; hence, maps should be the principal objects of study in geography.

The pupil commits his lesson in text to memory, and for a recitation, he repeats it to the teacher as given by the author. In studying maps the same rule should be observed; that is, the maps should be committed to memory, and for a recitation they should be reproduced as given in the book.

That form is easiest remembered which the hand is taught to trace. The exercise of the mind, needed to teach the hand to trace a form, impresses that form upon the mind. As the study of maps is a study of form, the manner of studying them should be by map-drawing.

In learning to draw maps, the pupil needs some rule or guide to assist him in drawing them correctly, and also to enable him to judge of their accuracy when drawn. This assistance is best afforded by the use of geometrical figures or diagrams. The diagram used in each case, in order to answer the purpose intended, should be so constructed as to coincide as nearly as possible in its outline with the boundaries of the map to be drawn. By the relative lengths of the lines of which it is composed, it should express the general laws of form of the map it is intended to accompany, and, by its angles and division marks, the position of prominent features should be determined. However complex and irregular the map may be, the diagram should be so simple that it can be readily constructed and easily remembered by the pupils.

In the construction of the diagrams used for drawing the Continents, the first line in each case serves as a measure for determining the lengths of the other lines. For the States *no additional diagram is used*, because the bounding lines are generally straight, and they themselves when taken together form a geometrical figure. In drawing the States, therefore, it is only necessary to select one of the straight lines forming the boundary for a measuring unit. The line selected should be a convenient measure or multiple of the other lines.

In conducting exercises in map-drawing, the class should be practiced,—*first* in drawing upon the blackboard, under the immediate direction of the teacher; *second*, in drawing upon slates, their work to be submitted to the teacher; and *third*, in executing maps upon paper, to be presented for the criticism of both the teacher and the class.

Either the teacher or one of the more skillful pupils should execute a well-finished and accurate map upon the blackboard. From this drawing—which is much to be preferred to any printed outline map—the class may recite their lesson, and upon it each of the new features, as they are learned from day to day, may be represented.

It is well to accompany every lesson in map-drawing

with more or less practice in rapid sketching. In order to excite emulation for quick work, the lesson may be drawn on the board, and the exercise timed by the teacher. Pupils, by practice, will soon be able to draw a diagram in half a minute, a State in from half a minute to two minutes, and a Continent in from three to five minutes. Concert recitation should frequently accompany rapid sketching.

An exercise called *talking and chalking* will be found both interesting and valuable. The pupil, while he is drawing a map, briefly and in a lively manner, describes the features as he represents them; his verbal explanations all the while keeping pace with his illustrations made with the chalk.

All directions and exercises in map-drawing should be such as to prepare the pupil to draw rapidly, accurately, and *without the copy*.

After the pupils have learned to draw a map with sufficient accuracy, and are able to describe satisfactorily the features it contains, they may, with the use of colors and India ink, be taught to draw and embellish one for preservation. *Not much time, however, should be spent in producing highly ornamented maps.* A slate-pencil and slate, lead-pencil and paper, white crayon and blackboard, are all the materials usually needed in map-drawing exercises. Rapid work and much of it should be the motto.

Special attention should be directed to the method employed for representing the population of cities and the heights of elevations. The symbols used will greatly assist the memory in retaining these facts. Special lessons may be given to teach their meaning. Their use should be required in all map-drawing exercises.

In drawing a Continent, the pupils should be taught,—*first*, to construct the diagram accurately; *second*, to draw the coast line, and to describe all the features formed by it, such as peninsulas, capes, bays, gulfs, &c.; and *third*, to draw and describe the internal features, such as mountains, lakes, rivers and cities. It is all important that the pupils should be able to draw the outline of a Continent readily and accurately, before they attempt to represent the internal features; for upon an imperfect drawing of the outline, the details must necessarily be imperfect.

In describing the features of a map, observe the following order and directions:—

Diagram.—Explain in full the manner of its construction.

Points of Coincidence.—Name in order the angles and division marks upon the diagram, and the features upon the map, the location of which they determine.

Peninsulas.—State from what portion of the Continent they project, and by what waters they are embraced.

Capes.—State from what portion of the Continent they project, and into what waters.

Bays.—Give their location, and the names of the bodies of water to which they are tributary.

Islands.—State where situated, and name the waters by which they are surrounded.

Mountains.—Give their height, the general direction in which they extend, and the part of the Continent where they are located.

Lakes.—State where located, and name the river which forms the outlet.

Rivers.—State where they rise, in what direction they flow, and into what waters.

Political Divisions.—Bound the country, and name, bound, and give the capital of each of the divisions.

Cities.—Give location and population.

EXPLANATION OF THE SIGNS USED TO REPRESENT THE POPULATION OF THE CITIES AND TOWNS.

FIRST CLASS.

In the First Class only one Sign is used viz. a round dot.
● represents under 10,000 inhabitants.

SECOND CLASS.

Each Line of the Second Class represents a population of 10,000.

THIRD CLASS.

The markings of the Third Class have a Dot in the centre. Each Line upon this Dot represents 100,000 population.

○.....10,000	●.....100,000
+.....20,000	⊕.....200,000
⦶.....30,000	⦶.....300,000
#.....40,000	#.....400,000
##.....50,000	##.....500,000
###.....60,000	###.....600,000
####.....70,000	####.....700,000
#####.....80,000	#####.....800,000
#####.....90,000	#####.....900,000

FOURTH CLASS.




The markings of the Fourth Class have a Dot and Circle (●) in the centre. Each Line upon this Dot and Circle represents 1,000,000 inhabitants.

⊙.....1,000,000	⦶.....3,000,000
⊕.....2,000,000	⦶.....4,000,000

EXPLANATION OF THE SIGNS USED TO REPRESENT THE ELEVATION OF THE MOUNTAINS.

RANGES.

Hill and Mountain Ranges, Like the Cities, are divided into Four classes. The First is represented by a series of Parallel Curves; the Second by a series of Interlocking Curves; the Third by a Waved Line; and the Fourth by a Zigzag Line; as follows:

))))))))))))))	First Class or Hills,—Under 2000 ft. high.
	Second Class,—Between 2000 & 8000 ft. high, or Between ½ and 1½ miles high.
	Third Class,—Between 8000 & 16,000 ft. high, or Between 1½ and 3 miles high.
	Fourth Class,—Over 16,000 feet high, or over 3 miles high.

PEAKS.

For Peaks under one mile high each Curve upon the right represents One-Fourth of a mile Elevation; for those one mile high or more, each Line upon the right represents One Mile in Elevation and the Dash underneath One Half a Mile.

⌒ ¼ of a mile high.	⌒ 2½ miles high.
⌒ ½ " "	⌒ 3 " "
⌒ ¾ " "	⌒ 3½ " "
⌒ 1 " "	⌒ 4 " "
⌒ 1½ miles high.	⌒ 4½ " "
⌒ 2 " "	⌒ 5 " "

System Patented October 16th, 1866.

DIRECTIONS FOR DRAWING NORTH AMERICA.

Diagram.—1. Draw a quadrant, and divide it into four equal parts, as represented in the figure. Through the first division at *r*, and the right angle, draw the first line of the diagram the length desired for the map.

2. From the centre of this line, draw the line *CD* at right angles with it, and one-half its length. Connect *AD* and *BD*.

3. Extend the line *CD* toward *E*, making the whole length *DE*, equal to *AD* or *BD*, and draw the lines *AE* and *BE*.

4. Divide the line *AE* into four equal parts, and from the upper division-point at *O*, draw the line *OH* at right angles to *AE*, and equal to *EC* in length. Connect *A* and *H*.

5. Divide the line *EB* into two equal parts, and from its centre, and at right angles with it, draw the line *IJ* one-half the length of *EC*, and connect *E* and *J*, and *J* and *B*.

6. Divide the lines *CD* and *CB* each into two equal parts, and the lines *AD* and *DB* each into six equal parts.

7. Sub-divide the lower division of the line *DB* into three equal parts, and from the division-point at *L* draw *LM*, and from *M* draw *MN*, and from *N* draw *NO*,—making the length of each line equal to two-thirds of the distance from *B* to *K*, or equal to the distance from *L* to *K*.

It will be observed that if the diagram is correctly drawn, the lines *DA*, *DE* and *DB* are equal in length, and the line *AE* is vertical.

Position.—North America is situated North of the Equator, and is joined to South America by the Isthmus of Panama.

Extent.—The length of the Continent, extending from Point Barrow, on the North, to the Port of Guatemala on the South, is 4,800 miles.

General Form.—The general form of North America is triangular. It is wide toward the North, and narrow toward the South. The Arctic and Atlantic coast-lines are nearly straight in their general direction, while the Pacific coast-line is curved.

Points of Coincidence.—The position of Point Barrow is determined by the northern angle of the diagram; Cape Charles by the eastern angle; Port of Guatemala by the southern angle; Bay of San Francisco by the western angle; and the western extremity of Alaska Peninsula by the north-western angle.

*** Drawing the Map.—Arctic Coast.**—Commence at Point Barrow. Make the mouth of the Mackenzie River opposite the first division; Victoria Land on the second; the mouth of Hudson Bay between the third and fourth, and Ungava Bay and Cape Chidley near the fifth division. The southern extremity of Hudson Bay touches the line *CD* near its centre.

Atlantic Coast.—Make the Pena. of Nova Scotia opposite the first division; Cape Cod north of the second, and Cape Fear at the third. The western shore of Florida crosses at the fourth division; the mouth of the Gulf of Mexico is between the fourth and fifth, and Yucatan Pena. extends as far north as the fifth. The shore of the Gulf of Mexico crosses the line *CB* near its centre, and touches the line *EB*. The shore of Central America, and the Isthmus of Panama follows closely the zigzag line from *K* to *O*.

Pacific Coast.—California Peninsula extends nearly as far south as the angle at *J*, and the eastern shore of the Gulf of California crosses the line *IJ* near its centre.

Note.—It will be observed that the Lake of the Woods is on the line *CD*, midway between its centre and *c*; also, that Lake Erie is midway between the centres of the lines *CD* and *EB*.

* In these directions for drawing, some features are referred to which are not found upon the accompanying maps. In such cases it is expected that the pupil will refer to the other maps in the book.

DIRECTIONS FOR DRAWING SOUTH AMERICA.

Diagram.—1. Draw the vertical line *AB* the length desired for the map, and divide it into four equal parts. From the upper division-point, draw a horizontal line to the right, one-half the length of the first line, and divide it into three equal parts. Extend this horizontal line one-third of its length to the left.

2. Draw straight lines from *C* to *F*, from *F* to *A*, from *A* to *E*, and from *E* to *B*, and divide the lines *FA*, *AE*, and *EB*, each into three equal parts.

General Form.—South America in its general form is wedge-shaped—being wide toward the north and narrow toward the south. Its coast-line is simple, and deviates but little from the lines of the diagram. The length of the Continent from north to south is 4,500 miles.

Points of Coincidence.—The position of the Peninsula of Paragana is determined by the northern angle of the figure; Cape St. Roque by the eastern angle; Cape Pillar by the southern, and Cape Parina by the western. Opposite the second division-point, on the line *FA*, is the Isthmus of Panama; and opposite the second, on the line *AE*, is the mouth of the Amazon. Opposite the first division on the line *EB* is Cape Frio, and opposite the second is the mouth of the Rio de la Plata.

DIRECTIONS FOR DRAWING AFRICA.

Diagram.—1. By means of a quadrant divided into six equal parts, as represented in the figure, draw the first line of the diagram the length desired for the map.

2. Divide this line into two equal parts at *C*, and the upper half in four equal parts.

3. With the points *A* and *B* as centres, and with a radius equal to three-fourths of the first line, draw two arcs to intersect *D*, and draw the lines *AD* and *BD*. In the same manner with the points *A* and *C* as centres, and with a radius equal to three-fourths of the line *AC*, determine the point *E*; and draw *AE* and *CE*.

4. Divide the line *AD* into two equal parts, and draw the perpendicular *FH* equal to one-eighth of the first line. Divide the part *FD* into two equal parts, and draw the lines *AH* and *HG*. Trisect each of the lines *AH*, *DB*, *BC* and *CE*.

General Form.—Africa resembles both North America and South America in its general form, being wide at the north and narrow toward the south. Its coast is very regular, like that of South America. Its length, from Cape Spatel to Cape Agulhas, is 5,000 miles. Like South America, it is situated on both sides of the Equator.

Points of Coincidence.—The position of Cape Spatel is determined by the northern angle of the diagram; the Isthmus of Suez by the north-eastern angle; Cape Guardafui by the eastern angle; Cape Agulhas by the southern, and Cape Roxo by the western.

Outline.—Commence at Cape Spatel, and draw the northern and eastern coasts; then, from the same point, draw the western coast. The coast from Cape Spatel to Cape Bon is without the line of the diagram; then it crosses the line, and forms the Gulf of Sidra, opposite the second division-point. The western shore of the Red Sea follows the line *HG*, and makes an inward curve between *G* and *D*. The eastern shore first makes a small outward curve; touches the line at the first division-point, and then makes a much larger bend without the line, touching again at Cape Agulhas. From this point it deviates but little from the diagram till it reaches Cape Lopez. Between this point and the first division on the line *CE*, there is a large inward bend forming the Gulf of Guinea. It then bends without the line till we reach Cape Roxo. From Cape Roxo to Cape Spatel the coast is wholly without the line.



Fig. 2.

Figure 2 represents a convenient Ruler for pupils to use in drawing maps upon the blackboard. It is twenty inches long, and divided into halves, thirds, fourths and sixths. A similar one, six inches long, may be used for drawing on slate or paper.



Fig. 2.

Figure 2 represents an easy method for drawing a quadrant.



Fig. 3.

Figure 3 represents an easy method for trisecting a line.

Note.—In the construction of diagrams, and in the division of lines, the pupils should at first be allowed to use a ruler, such as the one represented in figure 1. After some practice, however, the ruler should be dispensed with, and the figures should be drawn by hand, guided only by the eye.

In drawing a quadrant, a piece of crayon held between the thumb and first finger may be made to describe the arc around the end of the fourth finger, as represented in figure 2. A vertical and a horizontal line drawn from the centre to the arc will complete the quadrant. Instead of the hand, a short string with a piece of crayon tied to the end of it may be used; or, each pupil may be furnished with a quarter of a circle, cut out of a piece of writing paper, having the divisions of quarters and sixths marked upon it.

In dividing a line into three equal parts, use the finger of one hand and a crayon in the other, and place them so that the three parts appear equal, as represented in figure 3.

In dividing a line into four or six parts, first bisect it, and then bisect or trisect each half.

It will be observed that the different lines of the diagrams are drawn in the order they are lettered, and that the divisions are made in the order they are numbered.

In drawing upon paper or slate, the diagram should be in very light lines. For blackboard work, the figure should be drawn with a slate-pencil.

MODEL LESSON IN MAP-DRAWING.

In Map-drawing Exercises, the pupils may either be required to describe their work in full, without the assistance of questions; or, the lessons may consist of a series of questions and answers similar to the following model:—

North America.—After the diagram is made, the class is prepared to draw the map,—first, with the atlas in hand, and afterwards from memory. Every order given by the teacher should be executed by the class simultaneously, and with military promptness and precision. The execution should commence immediately after the last word of the order is given. Each pupil is supposed to have his own diagram on the board upon which he draws his map.

Outline: Teacher.—What is the most northern point of North America?

Scholars.—Point Barrow.

T.—Show where Point Barrow is located. In what direction from it is Cape Charles?

S.—South-east.

T.—Point where Cape Charles is located. (Scholars point.)

Now make a dot showing the location of each of the following places between these two Capes:—1st. For Cape Bathurst. (Scholars made the dot with the crayon.) 2d. For Victoria Land. 3d. For the northern extremity of Melville Pena. 4th. For Hudson Strait. What large bay between Melville Peninsula and Hudson Strait?

S.—Hudson Bay.

T.—5th. For the southern extremity of Hudson Bay. (Dot.) 6th. For Cape Chidley. What bay south-west from Cape Chidley?

S.—Ungava Bay.

T.—Draw the coast-line from Point Barrow to Cape Bathurst. (Scholars draw.) From Cape Bathurst to Victoria Land. From Victoria Land to Melville Peninsula. Draw Hudson Bay and James Bay. Draw the line from Hudson Strait to Cape Charles.

The teacher should now make a brief inspection of the work done, and point out and correct all the faults made.

In this manner the outline of North America should be completed.

Mountains: T.—How far do the Rocky Mountains extend?

S.—Through the entire length of North America.

T.—What is their elevation?

S.—Between 8,000 and 16,000 feet, except the northern portion, which is only between 2,000 and 8,000 feet.

T.—Draw the Rocky Mountains nearly parallel with, and at a proper distance from the Pacific Coast. What range in the eastern part of the Continent?

S.—The Appalachian Mountains.

T.—What is the elevation of this range?

S.—About 2,000 feet.

T.—Draw it. The teacher should now inspect the drawing of the mountains and correct mistakes.

Lakes: T.—What three lakes have their outlet through the Mackenzie River?

S.—Great Bear Lake, Great Slave Lake, and Athabasca Lake.

T.—Point where the first is located; the second; the third. Draw the first; the second; the third.

In this manner complete the drawing of the lakes.

Rivers: T.—Describe the Yukon River.

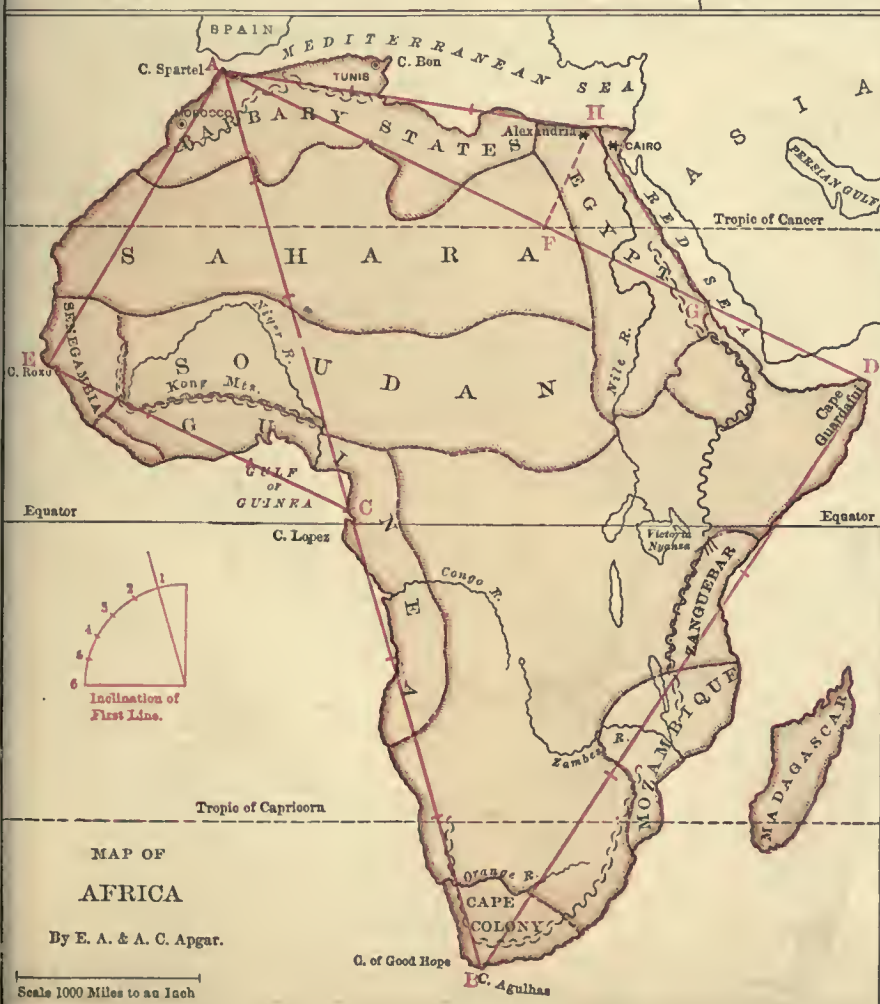
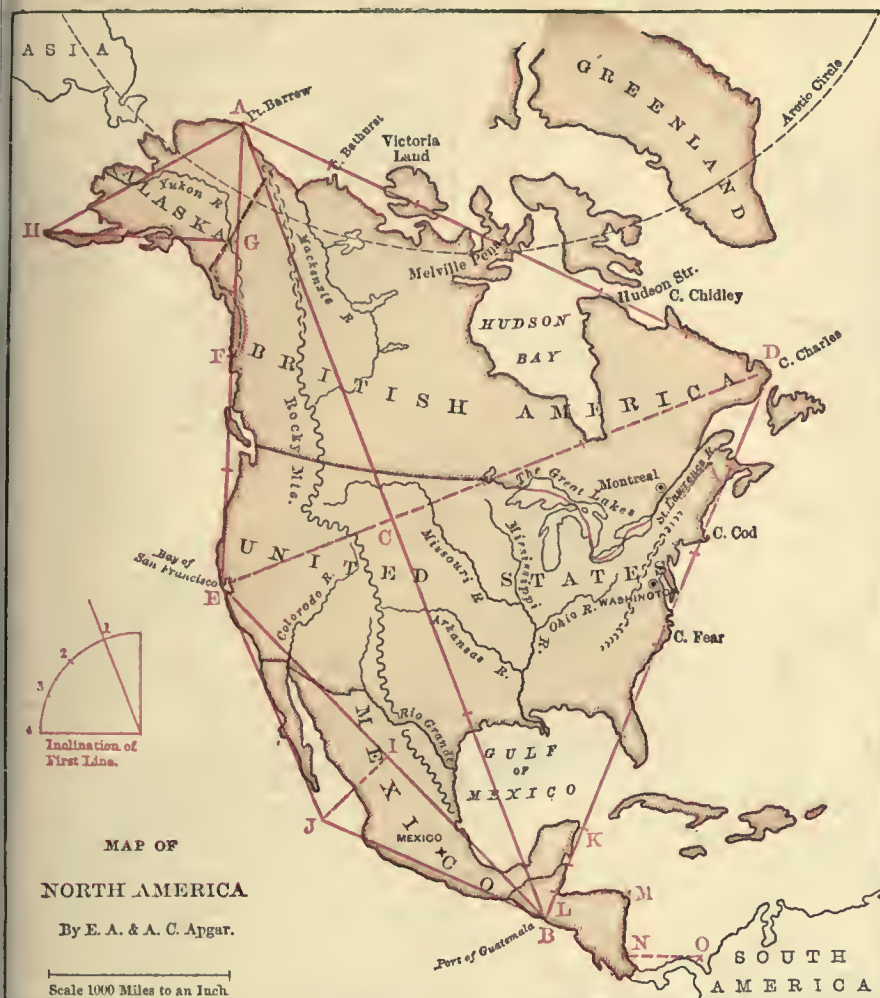
S.—It rises near the Pacific Coast and west of the Great Slave Lake; flows, first, in a north-westerly direction, then westerly through the country of Alaska, and empties into Behring Sea.

T.—Draw it. Follow in the same manner with the Mackenzie; Nelson; Albany; St. Lawrence; Ottawa; Savannah, and Alabama. **T.**—Describe the Mississippi River.

S.—It rises in a small lake west of Lake Superior, and south of the Lake of the Woods; flows a southerly course through the United States, and empties into the Gulf of Mexico.

T.—Draw it. Draw the tributaries, and describe them. Complete the rivers in this way, and inspect the work.

Cities: T.—Locate the cities as I name them, taking pains to show the population of each as it is done in the book.



DIRECTIONS FOR DRAWING AUSTRALIA.

Diagram.—1. Draw the horizontal line *AB* the length desired for the map, and bisect it at *C*.

2. Through the centre *C* draw the line *DE* at right angles to *AB*, making *CD* and *CE* each one-third the length of *AB*.

3. Draw *DF* at right angles to *DE*, and one-fourth the length of *AB*, and connect *F* and *B*.

4. Draw *GH* at right angles to *DE*, making *GE* and *EB*, each equal to *FB* in length, and bisect the lines *CE* and *EH*.

Points of Coincidence.—North-west Cape coincides with the angle at *A*; Sandy Cape, with the angle at *B*; Cape Howe, with the angle at *H*; and Cape Leeuwin, with the angle at *G*. Cape York is a little north of the angle at *F*.

Map.—From *G* the coast extends toward the centre of the line *CE*, and from this point it extends toward and crosses near the bisecting point of the line *EH*.

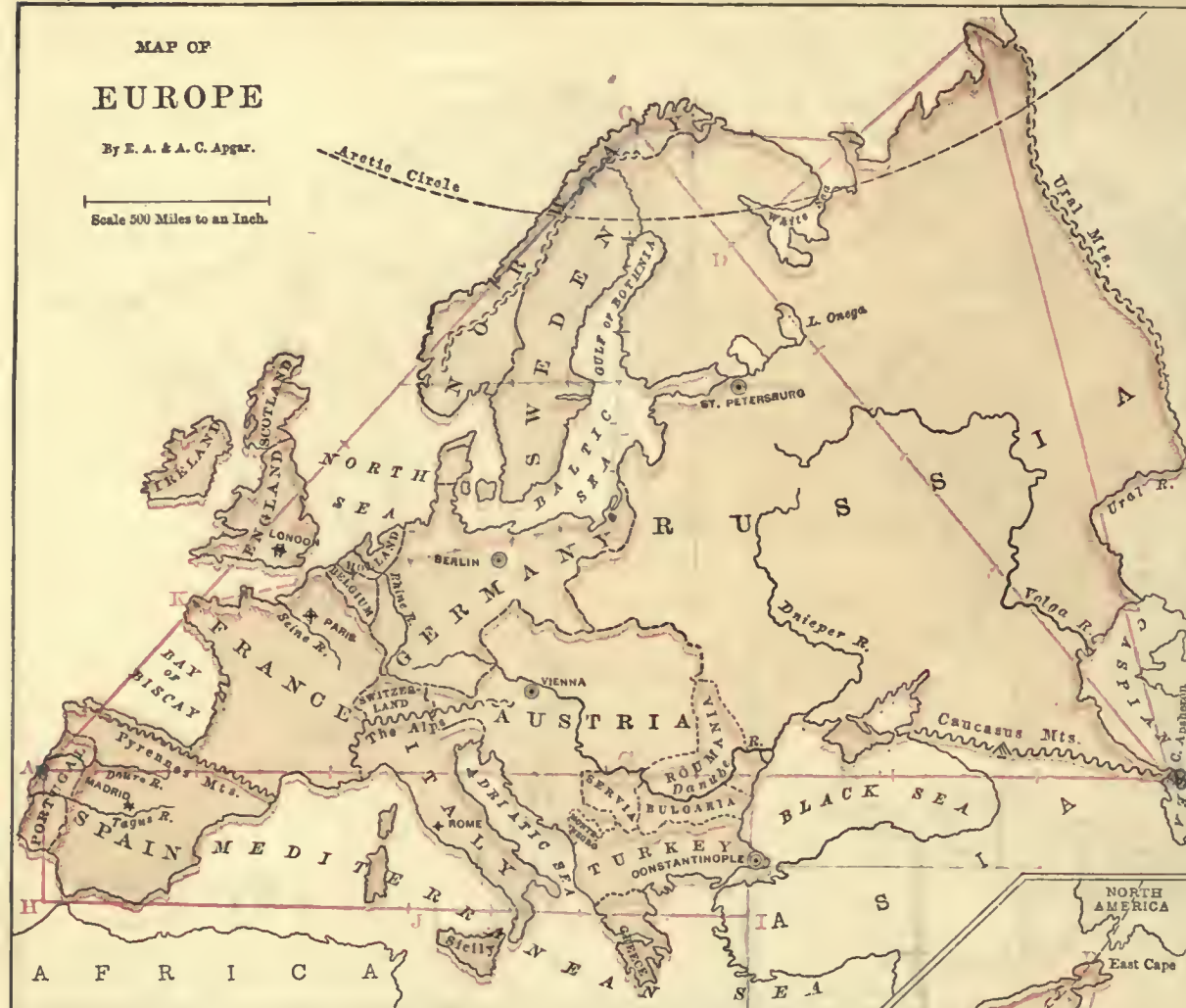
The Gulf of Carpentaria is situated between *D* and *F*, and extends toward the south nearly half way to the line *AB*.

Note.—If Australia is drawn without New Zealand, the first line *AB* should be inclined about five degrees from the horizontal, the extremity *A* being farther north than the extremity *B*.

MAP OF EUROPE

By E. A. & A. C. Appar.

Scale 500 Miles to an Inch.



DIRECTIONS FOR DRAWING EUROPE.

Diagram.—Draw the horizontal line A B the length desired for the map. This line connects the mouth of the Douro River with Cape Appheron. Its length is 3,000 miles. With A and B as centres, and with a radius equal to three-fourths of A B, draw arcs to intersect at C, and connect A and C, and B and C. Divide A C into four, C B into six, and A B into eight equal parts. From the first division to the right of C, and from the angle A draw vertical lines, as shown in the figure, each one-eighth the length of A B. Connect H and I, and divide the right-hand half of this line into four equal parts. From B draw a perpendicular line equal to two and one-half divisions on the line A B, and bisect it. Connect C and F, and E and B. From K draw a line in the direction of the centre of C B until it meets a vertical line drawn from the angle C.

Map.—In drawing the map commence at C, on the coast of Norway, and draw, in order, the northern and eastern boundaries; then commence again at C and draw the western and southern boundaries. The coast of Norway follows the line C A, and extends south to a point about midway between C and K. The lines C L and L K will assist in drawing the Gulf of Bothnia, the Baltic Sea, and the north-western shores of Germany and France. The head of the Bay of Biscay is near the first division to the right of A, on the line A B. The Gulfs of Lions and Geoa are on opposite sides of the second division, and the head of the Adriatic Sea embraces the third division. The fifth division marks the western extremity of the Black Sea; the Sea of Azov is north of the sixth division, and the eastern extremity of the Black Sea is near the seventh. Italy resembles in outline the shape of a boot. The southern extremity is between the first and second divisions to the right of J on the line H I. The Peninsula of Greece is situated between the second and third divisions, and extends south of this line equal to one division. The Sea of Marmora is a little north of I.

MAP OF ASIA

By E. A. & A. C. Appar.

Scale 1000 Miles to an Inch.



DIRECTIONS FOR DRAWING ASIA.

Diagram.—Draw the vertical line A B a little more than one-half the length desired for the map, north and south. Divide it into three equal parts, and the upper third into two parts. From the point B draw the horizontal line B C one and one-sixth times the length of A B. Bisect it, and connect A and C. Trisect A C, then bisect the middle division and trisect the upper. With the points A and C as centres, and with a radius equal to one and two-thirds times the first line, draw arcs to intersect at D, and connect A and D, and C and D. Trisect A D, and bisect the middle division. Divide the line C D into four equal parts, and bisect both of the extreme divisions. Draw the lines E P and N L and bisect them; also one from O to K and trisect it. From the lower trisecting point on the line O K draw a line toward J till it meets the line N L. The distance measured by the line A C is 5,300 miles.

Map.—In drawing the map commence at East Cape and draw in order the eastern, southern, and western boundaries, including the Black Sea; then commence again at East Cape and finish the outline. The shore of Kamchatka crosses at the first division on the line D C; the southern shore of the Sea of Ochotsk is at O; the Yellow Sea is near the centre of the line at H; the Gulf of Tonquin is at I; and the Gulf of Siam is near the last division. If we suppose a line drawn from this division-point parallel with the line A C, it will assist in determining the position of the Gulf of Siam and the Bay of Bengal. Cape Romania coincides with the angle at C, as Cape Comorin with the lower division on the line O K. The head of the Persian Gulf is near the centre of the triangle A N L. The Strait of Bab-el-Mandeh is at N; the Isthmus of Suez between A and M; and the Strait of Bosphorus, at A. The Black Sea extends as far east as the first division on the line A C, and the Caspian Sea touches this line at the second division. The position of the Caspian Sea, the Ural River, and Ural Mountains is determined by the line E C.



MAP OF THE

UNITED STATES.

By E. A. & A. C. Apper.

Scale 300 Miles to an Inch.

DIRECTIONS FOR DRAWING THE UNITED STATES.

- Diagram.**—1. Draw the horizontal line **A B** the length desired for the map, and divide it into four equal parts. This line coincides with parallel 49° north. It extends from Vancouver Island to the Gulf of St. Lawrence, and is 2800 miles long.
2. Draw the vertical lines **A F**, **G G**, and **E H**, each one-half the length of the first line, and connect **F** and **H**. Trisect the line **A F** at **I** and **J**, and the line **E H** at **K** and **L**.
3. Draw the oblique lines **C K** and **D K**. Extend the line **F H** to **M**, making **G M** equal in length to the oblique line **C K**, and connect **B** and **M**.
4. Trisect the line **B M** at **N** and **O**. Bisect the middle third of the line **A F** at **P**, and trisect the lower half at **2** and **3**. From the points **I** and **3** draw horizontal lines across the figure.
5. Trisect **P G** at **P** and **Q**, and draw **D P**. Bisect **G H** at **R**. Trisect **F P** at **4** and **5**, and bisect **G B** at **6**. Divide each of the oblique lines, **C K** and **B K**, into four equal parts, and bisect the line **E K**. Also bisect each of the thirds on the line **B M**.
6. Mark the point **17**, making its distance from **T** equal to one division on the oblique line **C K**, and also on the line below mark the point **18**, making its distance from **U** equal to one and one-half divisions on the oblique line. Bisect **T K** at **19**.
7. Connect the points **11** and **15**. From **M** draw the line **M S** one-sixth the length of **B M**. From **6** draw a line north to **20**, equal in length to the distance from **G** to **6**.
- Outline.**—1. Draw the forty-ninth parallel from **A** to **C**, for the northern boundary of the States, and at **C**, the centre of the first line, locate the Lake of the Woods.
2. The oblique lines, with their divisions, serve as guides for drawing the Great Lakes and the St. Lawrence. Lake Superior crosses at **7**, and its northern shore touches the line **A B**. The western shore of Lake Michigan crosses at **8** and at **19**. Saginaw Bay touches at **9**, and the southern extremity of Lake Huron touches between **9** and **K**.

3. Lake Erie surrounds the point at **K**; the northern shore of Lake Ontario crosses at **10**, and midway between these points is the Niagara River. The northern part of Maine crosses at **12**.
4. The line **B M**, with its divisions, marks the direction of the Atlantic Coast, and the position of several important features. The eastern boundary of Maine crosses at **14**, and the southern coast crosses midway between **14** and **N**. At **N** the coast again crosses, and forms Cape Cod without the line. Opposite **15** is Delaware Bay, and at **O** is Cape Hatteras. From this point to **M** the coast makes quite a bend within the line.
5. At **S** is Cape Sable. The western shore of Florida crosses at **H**; at **H** is the mouth of the Mississippi, and near **G** is the coast of Texas. At **Q** is an important bend in the Rio Grande, and south of the middle point between **Q** and **G** is the mouth of this river. Between **4** and **5** is the Peninsula of California. The southern boundary of California is midway between **3** and **F**.
6. The western shore of California is west of the line **A E**, equal to the distance from **1** to **3**. San Francisco Bay is west of **2**, and the point where the coast crosses the line **A F** is south of **J**, equal to the distance from **3** to **J**.

- The States.**—After completing the outline, draw the Mississippi River, and then draw the States in the following order:—
1. The New England States.
 2. California.
 3. The Middle States.
 4. Arizona, New Mexico, Indian Territory, and Texas.
 5. The Southern States, east of the Mississippi River.
 6. Nevada, Utah, Colorado, and Kansas.
 7. Washington, Oregon, and Idaho.
 8. The Western States, east of the Mississippi River.
 9. The five States bordering the Mississippi on the west.
 10. Montana, Wyoming, Dakota, and Nebraska.
- Note.**—The Mississippi River rises a little south of the Lake of the Woods, and flows south-easterly, till it crosses the line **I K** at **17**. It here makes a curve to the east, and then a larger one to the west, and crosses at **18**. From this point to **20** it flows a little west of south. From **20** its course is south-east.
- The Eastern States are all east of the line from **11** to **15**. The Middle States are east of the line **E H**. The northern boundaries of Arkansas, Tennessee, and North Carolina coincide with the horizontal line drawn through **C**, and the northern boundaries of Arizona, New Mexico, and Indian Territory are a little north of this line. The northern boundaries of California, Nevada, Utah, Indiana, Ohio, Pennsylvania, Connecticut, and Rhode Island are a little south of the line **I K**. The western boundaries of Missouri, Arkansas, and Louisiana coincide closely with the vertical line **C G**. The western boundaries of Wyoming, Colorado, and New Mexico lie in the direction of the line **D P**—that of Wyoming being west of it, and that of Colorado and New Mexico being east of it.

GEOGRAPHICAL AND STATISTICAL TABLES.

A considerable part of the matter usually found in Statistical Tables has in this book been incorporated in the text and in the various Topical Reviews. The following Tables are supplementary.

POPULATION, IN EVEN THOUSANDS, OF SOME OF THE PRINCIPAL CITIES OF THE WORLD.

[For the Population of the Principal Cities of the United States see page 59.]

NORTH AMERICA.		Chili.		Germany.		Turkey.	
Canada and Newfoundland.		Santiago 150,000		Berlin 1,122,000		Constantinople 600,000	
Montreal 140,000		Valparaiso 98,000		Hamburg 410,000		Adrianople 62,000	
Quebec 62,000		Argentine Confederation.		Breslau 272,000		Greece.	
Toronto 86,000		Buenos Ayres 290,000		Dresden 220,000		Athens 63,000	
Halifax 34,000		Cordova 29,000		Munich 230,000		AFRICA.	
St. John 26,000		Rosario 25,000		Elberfeld-Barmen 189,000		Barbary States.	
St. John's 23,000		Uruguay.		Cologne 145,000		Tunis 125,000	
Ottawa 27,000		Montevideo 73,000		Leipsic 149,000		Fes 100,000	
Mexico.		Paraguay.		Magdeburg 137,000		Mequinez 60,000	
Mexico 225,000		Asuncion 20,000		Königsberg 140,000		Morocco 50,000	
Leon 100,000		Brazil.		Stuttgart 117,000		Algiers 53,000	
Guadalajara 93,000		Rio Janeiro 275,000		Hanover 122,000		Egypt.	
Puebla 77,000		Bahia 129,000		Frankfort-on-the-Main 164,000		Cairo 327,000	
Guanajuato 63,000		Pernambuco 117,000		Dantzic 108,000		Alexandria 166,000	
Queretaro 48,000		Maranham 32,000		Strasbourg 104,000		Damietta 33,000	
Central America.		Denmark.		Nuremberg 100,000		Suez 11,000	
New Guatemala 56,000		Copenhagen 235,000		Bremen 112,000		Port Said 13,000	
San José 18,000		Netherlands.		Austro-Hungary.		ASIA.	
San Salvador 14,000		Amsterdam 328,000		Vienna 1,103,000		Turkey.	
West Indies.		Rotterdam 157,000		Buda-Pesth 300,000		Smyrna 150,000	
Havana 230,000		The Hague 123,000		Prague 162,000		Darnascus 150,000	
Santiago 96,000		Belgium.		Trieste 144,000		Beyrout 70,000	
Kingston 35,000		Brussels 400,000		Lemberg 110,000		Erzeroum 60,000	
Port-au-Prince 27,000		Antwerp 163,000		Gratz 97,000		Brusa 60,000	
San Juan 20,000		Ghent 133,000		Switzerland.		Jerusalem 28,000	
San Domingo 16,000		Liège 122,000		Geneva 68,000		ASIATIC RUSSIA.	
SOUTH AMERICA.		France.		Basle 61,000		Bokhara 70,000	
Venezuela.		Paris 2,269,000		Berne 44,000		Tashkend 100,000	
Caracas 55,000		Lyons 376,000		Zurich 76,000		Tiflis 104,000	
Maracaybo 22,000		Marseilles 360,000		Italy.		Irkutsk 34,000	
Colombia.		Bordeaux 221,000		Naples 493,000		Tobolsk 18,000	
Bogota 40,000		Lisle 178,000		Milan 321,000		East Turkestan.	
Cartagena 8,000		Toulouse 140,000		Rome 300,000		Yarkand 120,000	
Popayan 8,000		St. Etienne 124,000		Palermo 245,000		Kashgar 80,000	
Panama 18,000		Nantes 124,000		Turin 253,000		China.	
Ecuador.		Rouen 105,000		Florence 169,000		Peking 1,650,000	
Quito 23,000		Havre 105,000		Genoa 179,000		Canton 1,600,000	
Guayaquil 20,000		Spain.		Venice 133,000		Tientsin 930,000	
Peru.		Madrid 398,000		Bologna 123,000		Yo-Chow 800,000	
Lima 101,000		Barcelona 249,000		Messina 126,000		Foo-Chow 630,000	
Cuzco 18,000		Malaga 216,000		Leghorn 98,000		Nankin 1,500,000	
Callao 34,000		Valencia 143,000		Rumania.		Ningpo 260,000	
Bolivia.		Seville 134,000		Bucharest 221,000		Shanghai 272,000	
La Paz 26,000		Granada 76,000		Jassy 90,000		ISLANDS.	
Cochabamba 15,000		Cadiz 65,000		Galatz 80,000		Mauna Loa (Sandwich Islands) 14,000	
Sucre 12,000		Portugal.		Servia.		Ophir (Sumatra) 13,842	
		Lisbon 246,000		Belgrade 27,000		Owen Stanley (Papua) 13,205	
		Oporto 106,000		Bulgaria.		Semero (Java) 12,000	
				Sophia 21,000		Egmont (New Zealand) 8,840	
						Australian Alps (highest peak) 7,500	
						Kilauea (Sandwich Islands) 6,000	
						AUSTRALASIA.	
						Mekong 1,800	
						Euphrates 1,750	
						Ganges, Brahmapootra 1,600	
						Irrawaddy 1,200	
						Tigris 1,150	
						Ural 1,000	
						AFRICA.	
						Nile 3,895	
						Niger 3,000	
						Zambesi 1,800	
						Congo, or Livingstone (estimated) 1,600	
						Senegal, Orange 1,000	
						AUSTRALIA.	
						Murray 1,700	

HEIGHTS OF PRINCIPAL MOUNTAINS.

NORTH AMERICA.		Mexican Plateau.		FEET.		FEET.	
1. Northern Coast Mountains. FEET.		Orizaba	17,897	Tunguaragua	16,424	Dhawalagiri, Himalaya Mountains 26,826	
Mount St. Elias 19,283		Popocatepetl	17,784	Pichincha	15,924	Nanda Devi, Himalaya Mountains 25,661	
		Iztaccihuatl	15,700	EUROPE.		Hindoo Koosh Mountains (highest peak) 20,000	
2. Sierra Nevada and Cascade Range.		CENTRAL AMERICA.		Elburz (on Asiatic boundary) 18,572		Ararat (Armenia) 17,200	
Mount Whitney	14,887	Agua	14,494	Blanc (Alps) 15,784		Fusiyama (Japan) 14,177	
Mount Rainier	14,444	Fuego	12,790	Rosa (Alps) 15,223		AFRICA.	
Mount Shasta	14,440	SOUTH AMERICA.		Matterhorn (Alps) 14,835		Killimanjaro (Central Africa) 20,000	
Mount Tyndall	14,386	Andes.		Finster-aar-horn (Alps) 14,035		Kenia (Central Africa) 18,000	
Mount Dana	13,277	Illampu* 24,812		Jungfrau (Alps) 13,718		Teneriffe (Canary Islands) 12,182	
Mount Hood	11,225	Illimani* 24,155		Iséran 13,270		Atlas Mountains (highest peak) 12,400	
3. Rocky Mountains.		Aconcagua* 23,421		Mulhacen (Spain) 11,654		Mouotains of Abyssinia (highest peak) 10,000	
Uncompahgre Peak	14,540	Tupangati 22,015		Maladetta (Spain) 11,426		ISLANDS.	
Mount Harvard	14,384	Chimborazo 21,424		Mount Etna (Sicily) 10,874		Mauna Loa (Sandwich Islands) 14,000	
Gray's Peak	14,341	Nevada de Sorata 21,290		Mount Olympus (Greece) 9,754		Ophir (Sumatra) 13,842	
Mount Lincoln	14,297	Nevada de Cayambe 19,535		ASIA.		Owen Stanley (Papua) 13,205	
Long's Peak	14,271	Antisana 19,137		Everest, Himalaya Mountains (highest in the world) 29,002		Semero (Java) 12,000	
Pike's Peak	14,147	Cotopaxi 18,870		Dapsang, Karakorum Mountains 28,278		Egmont (New Zealand) 8,840	
				Kintchingunga, Himalaya Mountains 28,156		Australian Alps (highest peak) 7,500	
						Kilauea (Sandwich Islands) 6,000	

PRONUNCIATION OF DIFFICULT GEOGRAPHICAL NAMES.

☞ All marks used to indicate pronunciation are the same as are employed in Webster's Dictionary, last edition.

EXPLANATION OF MARKS. — *a*, *ä*, *i*, *ö*, *u*, *y*, long; *ä*, *e*, *ö*, *u*, *y*, short; *c*ure, *f*är, *l*äst, *f*äll, *w*hät; *t*hère, *v*eil, *t*ärm; *p*ique, *f*irm; *d*ône, *f*ör, *d*g, *w*olf, *f*öb, *f*öb; *f*ür, *r*je, *pyah*; *e*, *i*, *o*, silent; *h*, sound of long *h*; *ö*, similar to *e* in *her*; *ü*, like the French *u*; *ë*, sound of *i* in spirit; *ç* as *s*; *ch* as *sh*; *e*, *ch*, as *k*; *g* as *j*; *g* as in *get*; *g* as *z*; *u* as in *finger*, *lipk*; *th* as in *thine*; *l*, like *ll* in *million*; *n*, like *ni* in *minion*; *ë*, nearly like *e*; *ö*, similar to *th* in *this*; *o*, sound of German *ch*; *u*, strongly aspirated; *x*, sound of German *ch*; *z*, French nasal sound; *n*, like *rr* in *terror*

A.

Aachen, *ä*-chen.
Abaco, *ä*-bä-ko.
Abbitlbe, *ä*-be-tib-bee.
Abeokuta, *ä*-be-o-ky'ta.
Ab'er-deen'.
Abomey, *ä*-b'o-mä'.
Aboukir, *ä*-b'oo-keer'.
Abrantes, *ä*-brän'tes.
Acapulco, *ä*-kä-pool'ko.
Acaral, *ä*-kä-rä'l.
Ach-en'.
Aconcagua, *ä*-kon-kä'gwä.
Aere, *ä*-ker, or *ä*-ker.
Aden, *ä*-den; Arab. pron. *ä*-den.
Adige, *ä*-de-je; It. pron. *ä*-de-ja.
Ad'iron-dack.
Adrianople, *ä*-dri-an-o-pl.
Ad'ri-at'ic.
Ægean (Sea), *ä*-jee'an.
Afghanis-tan, *ä*-gän'ta-tän'.
Agades, *ä*-gä-dés'.
Agra, *ä*-grä.
Agullar, *ä*-ge-läs'.
Agulhas, *ä*-gool'yäs.
Ainsie, *än*, or *en*.
Alx-la-Chapelle, *ä*-ks-lä-shä'-pel'.
Ajaccio, *ä*-yät'cho.
Ak'ron.
Alamo, *ä*-lä-mo.
Albano, *äl*-bä-nä.
Al'be-marle (Eng.).
Al'be-marle (U. S.).
Albuquerque, *äl*-b'oo-kës-kä, or *äl*-b'oo-kërk.
Alcatraz, *äl*-kän'tä-rä.
Alençon, *ä*-len'son; Fr. pron. *ä*-län'son'.
Ä-lep'po.
Alentian, *ä*-län'shi-an.
Algarve, *äl*-gär-vä.
Al'giers'.
Alicante, *ä*-le-kän'tä.
Alleghany, *äl*-le-gä'n'l.
Allegheny, *äl*-le-gä'n'l.
Allier, *äl*-le-ä'.
Almaden, *äl*-mä-nen'.
Almeida, *äl*-mä'de-dä.
Alsace, *äl*-sä-sä'.
Altal, *äl*-täl'.
Altamaha, *awl*-ta-ma-haw'.
Alton, *äl*-ton.
Am-boy'.
Am-boy'na.
Amiens, *äm*-ten; Fr. pron. *äm*-ten'.
Amite, *ä*-meet'.
Am'os-këag'.
A-näm'.
An'da-man'.
Andorra, *än*-dör-ä.
An'do-ver'.
An'dros-cog'lin.
Anglesey, or Anglesen, *äng*-gl-se.
An-go-la.
Angostura, *än*-gos-too'rä.
Angoulême, *ön*-gool'am'.
An-to-ber'.
Antigua, *än*-te-gä.
Antilles, *än*-teel', or *ön*-teel'.
Apache, *ä*-pä-chä.
Ap'en-nines.
Ap'pa-lä-chi-an.
Ap'pa-lä-chi-co'ta.
Appo-mat'tox.
Araguay, *ä*-rä-gwä'.
Ar'nal.
Archangel, *ärk*-än'jäl.
Arequipa, *ä*-rä-kee-pä.

Ardennes, *är*-den'.
Ar'gen-tine.
Argyle, *är*-gil'.
Arica, *ä*-re-kä.
Arispe, *ä*-res-pä.
Ar-kan'sas.
Armagh, *är*-mä'.
A-roos'took.
Arpluo, *är*-pö'nö.
Ar'ras.
Artols, *äs*-twä'.
A-shan'tee, or Äsh'an-tee'.
Ash'ta-bu'tä.
Asla, *äs*-bi-a, often improperly pronounced *ä*-zhi-a.
As'pin-wall.
As-sam'.
As-sin'ni-boin'.
Asuncion, *ä*-sün'sön.
Atacama, *ä*-tä-cä-mä.
Atbara, *ät*-bä-rä.
Atchafalaya, *ätch*-af-a-lä.
Aube, *ö*.
Augs-burg.
Augustine, St., sent-aw'gus-teen'.
Au Sable, *ö*-sä-bl.
Auvérgne, *ö*-vër'n, or *ö*-vër'n'.
Auxerre, *ö*-sör'.
Avignon, *ä*-vön'yön'.
Avon, *ä*-vön.
Az'of.
Azores, *ä*-zör', or *ä*-zör'ez.

B.

Bab'el-man'deb.
Badajoz, *bad*-ä-höe'.
Baden, *bä*-den, or *bad*-en.
Bagdad, *bäg*-däd', or *bag*-däd'.
Ba-hä-mag'.
Bailla, *bä*-ä'.
Baikal, *bä*-käl'.
Balreuth, *bä*-ryth; Ger. pron. *bä*-roit'.
Balaton, *bä*-law-toän.
Bal'e-är'te.
Ballize, *bä*-leez'.
Balkan, *bäl*-kän'.
Bang'gör (U. S.).
Ban'kok'.
Barbadoes, *bar*-bä-döe'.
Bar-ce-lo'na, or *bar*-thä-lo'nä.
Barnaul, *bar*-now'l'.
Bar'ne-gat'.
Barn'sta-bie.
Basle, *bäl*.
Bä'so-räh.
Bä'ting'.
Baton Rouge, *bat*-un rooth.
Bayona, *bä*-yon'.
Bayona la Fourche, *bä*-yö lä f'ürsh.
Beaufort (British Dominions), *bö*-furt.
Beaufort (S. C.), *bä*-furt.
Behring, *beer*-ing.
Bel'fast' (Ireland).
Bel'fontaine (France).
Bel'fontaine (France), *bel*-fön'tän'.
Bel'fontaine (U. S.), *bäl*-fön'tän'.
Belle Isle, or Bellisle, *bel*-ll'.
Beloochistan, *bel*-oo-chis-tän'.
Benares, *ben*-ä-rës.
Bengal, *ben*-gaw'l'.
Ben-gü'zi.
Benguella, *ben*-gä-lä.
Benin, *ben*-sen'.

Bër'lin; Ger. pron. *bër*-leen'.
Ber-mu'das.
Bër-nard', Salut.
Berwick, (Eng.), *bër*-rik.
Bër'wick (U. S.).
Besançon, *b'z*-ön'sön'.
Bexar; Sp. pron. *bä*-sar'; oft-en pron. by the Texans, *beh*-har', or *bar*.
Biafra, *bä*-fä-rä.
Biloxi, *bä*-lök'si'.
Binghamton, *bing*-um-tun.
Birmingham, *bür*-ming-um.
Blanc (Mont), *mön* blän, or Mount Blanc.
Blois, *blö*, preferably *blwä*.
Bogota, *bo*-gö-tä'.
Bolsé, *bwä*-zé'.
Bokhara, *bo*-kä-rä.
Bologna, *bo*-lön'yä.
Bom-bay'.
Bonin, *bo*-nön'.
Bordeaux, *bor*-dö'.
Borgne, horn.
Bos-po-rus.
Boulogne, *hoo*-lön'; Fr. pron. *bo*-lön'.
Bowdoin, *bo*-den.
Brah'ma-poot'ra.
Bra-zil'; Port. pron. *brä*-zeel'.
Brazos, *brä*-zos, or *brä*-zö-sä.
Brem'en, or *brä*-men (Europe).
Breslau, *brä*-law, or *bräs*-lou.
Breton (Cape), *brät*-ün.
Brindisi, *brin*-de-sée.
Brü'gëg; Fr. pron. *brüz*.
Br'cha-rés'.
Bu'da; Hung. pron. *boo*-dö'h'.
Buenos Ayres, *bo*-nos ä'riz; Sp. pron. *bwä*-nos ä'riz.
Bvg.
Bvg'gös.
Bvg'gund-y.
Bushire, *hoo*-sheer'.
Butte, *büt*.

C.

Cäb'es.
Ca-bool'.
Caen, *kön*.
Cagliari, *käl*-yä-re.
Calcos, *käl*-kös.
Cä'ro (Egypt).
Cä'ro (U. S.).
Calais, *käl*-ias; Fr. pron. *käl*-ä'.
Calensis, *käl*-kä-shy, or *käl*-kä-shy'.
Cäldera, *käl*-dä-rä.
Callao, *käl*-lä'o, or *käl*-yä'o.
Calvi, *käl*-vi.
Cana'daigua, *kän*-ä-dä-gwa.
Can-ä'-e-räl.
Can-ton' (China).
Capo Girardeau, *je*-rar-dö'.
Ca-rac'as.
Cardenas, *kär*-dänäs.
Car'lo-be-an.
Cärl'be-ee'.
Carlsruhe, *car*-loo.
Car-rön'de-lät.
Carrageua, *kar*-tä-je'na.
Cäsh-mère'.
Cassiquari, *kä*-se-ke-ä'ree.
Castine, *käs*-teen'.
Ca-taw'ba.
Catoche, *kä*-te-chä.
Cat'ta-rau'gus.
Cä'te-gät.
Cau'ca-sus.
Cayenne, *ki*-en'.
Cayman, *ki*-män'.
Cayuga, *kä*-yoo-ga.
Celebes, *se*-lö-biz.
Cen'ls, or *se*-ne'.
Certe, set.
Cettigne, *chät*-tön'.
Ceuta, *sü*-tä.
Cévennes, *sä*-ven'.
Ceylon, *see*-lön, or *äl*-lön'.
Chagres, *chä*-grës.
Chaleur, *shä*-loor'.
Chämoumy, *shä*-moo'ne'.
Chandeleur, *shan*-de-loor'.
Chapala, *shä*-pä-lä.
Chapultepec, *chä*-pool-tä-pek'.
Chär'l-ton.
Chat'ta-hoo'che.
Chät'ta-woo'ga.
Chaudière, *shö*-dä-er'.
Chautauqui, *sha*-tau'kwä.
Chelsea, *chel*-sä.
Chenango, *she*-näng'gö.
Chemnitz, *zem*-nits.
Chemung, *she*-müng'.
Che-raw'.
Cherburg, *sher*-burg, or *shen*-book'.
Che-sun'cook'.
Cheviot, *chä*-vö-ut.
Cheyenne, *chä*-en'.
Chicago, *she*-kaw'go.
Chihuahua, *che*-wä-wä.
Chili, *chä*-le; Sp. Chile, *che*-lä.
Chil'i-cotile'.
Chimborazo, *chän*-bo-rä-zo.
Chin'cha.
Chovan, *chö*-wän'.
Chuculaga, *chü*-kë-ä-kä.
Cienfuegos, *se*-en'fwäg's.
Cimaron, *se*-mä-rön'.
Cobija, *ko*-bee-jä.
Coblentz, *kö*-blents.
Cochabamba, *ko*-chä-bäm'bä.
Co'chin Ch'ina.
Cohahuila, *ko*-ä-wee-lä.
Cohoes, *ko*-höe'.
Co-lim'bra, or *ko*-cem'brä.
Colima, *ko*-lee'mä.
Cologne, *ko*-lön'.
Colorado, *ko*-lä'h'do.
Comayagua, *ko*-mä-g'gwä.
Com'o-rin.
Coneocheague, *kon*-e-ko-cheeg'.
Conecuh, *ko*-nee'ka.
Congo, *cong*-go, or Livingstone.
Connaught, *kon*-nawt.
Co-pen-hä'gen.
Co-plapo, *ko*-pë-sä-pö'.
Coquimbo, *ko*-küm'bö.
Cor'do-va.
Coren, *kö*-rë-nä.
Corrientes, *ko*-ä-än'tës.
Costa Rica, *kös*-tä-rä-kä.
Cotopaxi, *ko*-lo-päks'e.
Cöv'ing-ton.
Cracow, *kär*-ko.
Crim'ea.
Croix (St.), *kroi*.
Cuencia, *kwen*-kä.
Cunana, *kü*-mä-nä'.
Curaçon, *kü*-tä-sö'.
Cuyahoga, *kä*-h'o-ga.
Cuzeo, *ko*-zo.

D.

Dahle-nega, *dä*-lön'-gä.

Dahomey, *dah*-hö'mä'.
Dai Nippon'.
Darfur, *dar*-foor'.
Darlen, *dä*-re-nen'.
De-cä'tur.
De-la-go'a.
Delhi (Hindustan), *del*-lee.
Delhi (U. S.), *del*-hi.
Demerara, *döm*-e-rä-rä.
Des Moines, *dë*-moin'.
Dileppe, *dä*-pë, or *de*-ep'.
Dijon, *dä*-zhön'.
Dnieper, *nee*-per.
Dniester, *nee*-ter.
Domulca, *döm*-e-nee'ka.
Dongola, *dong*-go-lä.
Dordogne, *dör*-dön'.
Do-vre-feld'.
Dräve.
Dronthelm, *dron*-tim.
Dubuque, *du*-bük'.
Duluth, *dj*-lyth'.
Dumfries, *dum*-frees'.
Dun-dee'.
Du-ned'in.
Duquesne, *du*-kän'.
Dus-sel-dorf; Ger. Düsseldorf, *düs*-sel-dorf'.
Dw'na.

E.

Eau Claire, *ö* clair'.
Ecuador, *ek*-wä-döe'.
Edinburgh, *ed*-in-bur-ruh.
Ed'is-to.
Egripo, *ä*-grë'po.
Eisenach, *ä*-zen-ä-k.
Elbe, *elb*; Ger. pron. *el*-beh.
Elburz, *el*-bürz'.
El Obeld, *äl*-ö-bä'd.
Enara, *ä*-nä-rä.
Erfurt, *er*-fürt.
Erlang-n, *er*-lang-en.
Erzeroum, *er*-roum'.
Erzgebirge, *er*-tsä-gä-bërg-gä.
Espinalho, *es*-pän-yä'so.
Essequibo, *es*-sä-kë'ho.
Esslingen, *es*-sling-gä.
Etienne, Saint, *sänt* et'e-en'.
Et'o-wah'.
Eufaula, *ü*-fä'la.
Eylan, *ä*-lou.

F.

Färoe, *fä*-ro.
Fauquier, *faw*-keer'.
Fayal, *fä*-wä'l'.
Fernandina, *fër*-nän-dë'nä.
Ferrara, *fër*-sä-rä.
Ferrol, *fër*-röl'.
Fezzan, *fë*-zän'.
Fiume, *fë*-më.
Fond du Lac.
For-mö'sa.
Freiburg, *fri*-burg.
Frio, *frie*-o.
Frob'ish-er.
Fü'ciä.
Funchal, *foon*-shäl'.
Funen, *fün*-en.
Fuslyama, *fü*-sä-yä'mä.

G.

Gairdner, *gärd*-ner.
Galapagos, *gal*-ä-pä'gus.

Galatz, *gä*-läts.
Ga-le'na.
Gallinas, *gäl*-ä'näs.
Gal'ves-ton.
Galway, *gaw*-wä.
Garonne, *gä*-ron'.
Gaspe, *gä*-pä'.
Gen'o-a.
Ghants, *gaw*-ts.
Ghent, *gënt*; Fr. Gand, *gön*.
Glessen, *gës*-sen.
Gila, *ä*-lä.
Gironde, *je*-rond'; Fr. pron. *zhë*-rönd'.
Gloucester, *glos*-ter.
Gobl, *gö*-bë.
Godavery, *gö*-dä-ver-l.
Goes, *gö*-s.
Gotha, *gö*-tä.
Göttingen, *gël*-ting-en, or *göt*-ting-en.
Granada, *grä*-nä-dä.
Greenwich, *grin*-tj.
Grigua, *grig*-wä.
Guadalajara, or Guadaluara, *gwä*-nä-lä-hä-rä.
Guadaloupe, *gaw*-da-loop', or *gä*-dä-loop'.
Gundalquivir, *gaw*-dal-kwiv'er.
Guadaluza, *gaw*-de-ä'na, or *gwä*-de-ä'na.
Guanaquato, or Guanaquato, *gwä*-nä-nwä'to.
Guapore, *gwä*-pö-rä.
Guardafui, *gwar*-da-fwee' or *gar*-da-fwee'.
Guatemala, *gaw*-le-mä'la, or *gwä*-le-mä'la.
Guayama, *gwä*-ä'mä.
Guayanquil, *gwä*-ä-keel'.
Guaymas, *gwä*-mä.
Guernsey, *gë*-në-se.
t-nä-na, *gä*-nä-na.
Guinea, *gü*-nä.
Guyandott, *gü*-än-dö't.

H.

Hague, *häg*.
Halnan, *hän*-nän'.
Hakodadi, *hä*-kö-dä-dee.
Halle, *häl*-leh.
Han'o-ver.
Hauran, *hö*-rän'.
Haverhill (Eng.), *hav*-er-il.
Haverhill (Mass.), *hä*-ver-il.
Hayre de Grace, *hav*-er de gräs.
Havall, *hä*-wä'lee.
Hayti, *hä*-ti.
Hebrides, *heb*-ri-dä.
He-le-na, St.
Helena (Ark.), *hël*-e-na.
Hel'to-land.
Hel'sing-fors'.
Hen-lo-pen.
Hen-rick-o.
Herat, *her*-ät'.
Herzogovina, *hërt*-seh-go-vee'nä.
Hesse Cas'sel.
Him-a-lä'ya.
Hin-do-stan'.
Ho-ang-ho, pronounced almost *w*-bang'ho'.
Hö-bö-ken.
Holstein, *hol*-stän'.
Honduras, *hon*-dö-ras.
Honolulu, *ho*-no-loo'loo.

Houston, hū'stun.
Hué, hoo-á.
Huelva, wel-vá.
Huesca, wes-ká.
Hy'í.
Hyderabad, hī'der-a-bād'.

I.

Iberville, í'ber-vil.
Iguape, é-gwá'pa.
Ihampú, eel-yám'pōō.
Ilhm (nl), eel-yá-má'nee.
Ilmen, íl-mén'.
Inagua, e-ná'gwá.
Indies, ín-dí.
Innsbruck, íns'prōk.
Interlachen, ín'ter-lák'en.
Io-wa.
Iquique, é-ké-ká.
Isér, e'er.
Itacolumi, é-tá-cō-lq-mē'.
Itu'a-ca.
Itu'ka.
Iztacchuate, é-s-ták-sē-hwát'.

J.

Jaen, há-en'.
Jalapa, ná-lí'pá.
Jalisco, or Xalisco, áá-lees'-ko.
Jan Mayen, yán mī'en.
Jassy, yás'se.
Jen'a; *Ger. pron.* yá'ná.
Ju'an Fér-nán-déz.
Ju'an, Saint; *Sp.* San Juao, sán hwaú.
Jungfrau, yōng'frow.

K.

Kagesima, ká-ga-sē'ma.
Kai-a-ma-zoo'.
Kamt-chat'ka.
Kauwha, ka-naw'wa.
Kan-da-har'.
Kaukakee, kap'ka-kee'.
Kano, ká-nō'.
Karakorum, ká-rá kō'rūm.
Karlskrona, kárls-kroō'ná.
Ka-tah'din.
Kearney, kár-ní.
Kearsarge, kér'sárj'.
Keuneebec, kēn-nē-bēk'.
Kenosha, kēn-ō'sha.
Ke'o-kuk'.
Kerguelen, kerg'e-len.
Khiva, kē-vá.
Klakhia, kē-ák'tá.
Klef, kē-el', or kl-ev'.
Klei, kēl.
Klilmanjaro, kíl-e-mān-já-rō'.
Klolen, kí'o-len.
Kloto, kí-o'to.
Kit'ta-tin'ny.
Klamath, klám'at.
Kolin, kō-leen'.
Königsberg, kēn'ígz-berg.
Kordofan, kōr-do-fán'.
Kuenlun, kwen-lōon'.
Kuka, kōō'ká.
Kurile, kōō'ríl.

L.

Lab'ra-dōr'.
Lad'o-ga.
La-droneg'; *Sp. pron.* lán-rō-nēs.
Lafayette, laf-á-ev'.
La Fourche, lá loorsh.
Lago Maggiore, lá-go-má-djō-rá.
La Guayra, lá gwí'rá.
Lancaster, lán'kas-ter.
Languedoc, lōn'geh-dok'.
Laon, lá-on'.
Laredo, lá-rá'dō.
La Rochelle, lá ró-shēl'.
Latakia, lá-ta-kee'a.
Lausanne, lō-zán'.

Legnano, lēn-yá'no.
Leicester, lē'ster.
Leinster, lín'ster.
Leipsic, lē'páik.
Leith, lēth.
Léon in ster (U. S.).
Leoulnster (Eng.), lēm'ster.
Le'on; *Sp. pron.* lá-on'.
Le Su'nr, soor.
Leyden, lí'den, or lí'den.
Liège, lēej; *Fr. pron.* le-ázh'.
Lisie, lēl.
Lima (Peru), lē'má.
Lima (U. S.), lí'ma.
Limoges, lē'mozh'.
Lipari, lí-pá-re, or lē'pá-ree.
Llano, lí-nōs.
Lodi (Italy), lō'dee.
Lodi (U. S.), lō'dí.
Lo-fō'den.
Loire, lwá.
Lomond (Loch), lōz lō'mund.
Los Angeles, lōce án-jél-éz.
Louisville, lōo'is-vil.
Luc'ca; *It. pron.* look'ká.
Lupata, lu-pá'tá.
Luzon, lōo-zōn'.
Ly-cōm'ing.
Ly'ons; *Fr.* Lyon, lē'ón'.

M.

Maas, mās.
Macao, má-cá'o, or ma-kow'.
Macinas, ma-chí'as.
Mack'i-naw.
Madelra, ma-dee'ra; *Port. pron.* má-dá'e-rá.
Mad'ras'.
Mad'rid (U. S.).
Magdala, mág'dá-lá.
Magellan, ma-jel'lan.
Makoketa, ma-kō'ke-ta.
Mal'a-bar'.
Mal'a-ga, or má'lá-gá.
Malta, mál'ta.
Mandalay, man-dá'le.
Manifesa, ma-ní'se.
Manitoba, man-l-to-bá'.
Manitowoc, man'e-too-wok'.
Manzanillo, mán-sá-neel'yo.
Maracaibo, má-rá-kí'bo.
Maranham, má-rá-nam'.
Mar'mo-ra.
Marquesa, mar-ká'sás.
Marquette, mar-ke'.
Marselles, mar-sál'.
Martinique, mar-tí-neek'.
Mas-sil-lou.
Ma-tan-zas.
Mat'a-pan'.
Mauch-Chunk, mawk-chūnk'.
Maz-at-lan'.
Mechlin, mek'lín.
Medina (Arabia), me-dee'na.
Medina (U. S.), me-dí'na.
Me-her'rin.
Meinungen, mī'níng-en.
Menai, mén'í, or men'á (Strait).
Mendocino, méo-do-see'no.
Mercede, mer-sá'd'.
Mersey, mēr'sí.
Merthyr Tydvil, mēr'ther-tid'vil.
Messina, mēs-see'ná.
Miami, mí-á'mí.
Milan, mil'an (Italy); mí-lán' (U. S.).
Miquelon, mik-e-lon'.
Miramachi, mí-rá-ma-sheé'.
Mod'e-na, or mod'á-ná.
Mohave, mó-háv'.
Mo-nad'nock.
Mo-non'ga-he'ta.
Mont Blanc, mōn blōn, or Mount Bláze.
Mont Cenis, mōn seh-nē, or seh-nēs'.
Mon'te-vid'e-o, or mon-tá-vee'dá-o.
Mont-pe'll'er.
Mo-re'a.
Mos'cōw; *Russ.* Moskwa, mosk-wá'.

N.

Nan-kin'.
Nantes, pants; *Fr. pron.* nōnt.
Nan-luck-et.
Natal, ná-tál'.
Natch'f-toch'es; *sometimes pronounced* nak-e-lush'.
Neufchatel, nūsh'á'tel'.
Ne'vis (Ben).
Newfoundland, nū'fund-lánd'.
New Or'le-ang.
Ngami, ngá'mee.
Niagara, ní-ag'a-ra; *sometimes pronounced* ní-ag'a-ra.
Nienragua, ní-á-rá-gwá.
Nice, nee.
Niger, ní-jér.
Nijne Novgorod, nízh'nō-nōv'gōrōd'.
Nip'is-sing'.
Nismes, neem.
Norwich (Eng.), nor'rij.
Norwich (U. S.), nor'rich, or nōr'wich.
Nov'gō-rōd'.
Nueces, nū-ees'.
Nyauza, ný-an'za.
Nyassa, né-ás'sá.

O.

Oahu, wá'hoo.
Oaxaca, wá-ás'ká.
Obi, ó-be.
Ock-lo-ko-nee.
O-co-nee.
Odense, ó-den-seh.
Ogechee, ó-gee-chee.
Olse, olz; *Fr. pron.* wáz.
Okeechobee, ó-kē-chō'bē.
Okfinkokee, ó-kē-fín-ō'kē.
Okhotsk, ó-kōtsk'.
Olean, ó-lē-án'.
Oléron, ó-lá'rōn'.
Omaha, ó-ma-haw'.
Oman, ó-mán'.
O-ne'ga.
Onelda, ó-ní'da.
Onondaga, ón'un-daw'ga.
On-to-nag'on.
O-pe'lí-ka.
Op'e-loy'sas.
Orizaba, ó-re-sá'bá.
Or-té-gal.
O'sage'.
Ouchita, wōsh'í-tá.
Oude, ówd.
O-zark'.

P.

Pad'u-a.
Paduca, pa-dy'ka.
Panama, pá'ná-má'.
Papua, pap'oo-a, or pá'poo á.
Para, pá-rá.
Paraguay, pá-rá-gwá', or pá-rá-gwí'.
Par'a-mar'í-bo.
Parana, pá-rá-ná'.
Parime, pár'imá.
Parina, pá-re-ná'.
Pas-sá'ic.
Passaro, pás'sá-ro.
Pass Christian, pás kris'te-án'.
Pa-tras'.
Pavia, pá-vee'á.
Pecos, pá-kōs.
Peipus, pá-re-pōos.
Pembina, pém'be-na.
Pernambuco, péz-nám-boō'-ko.
Pesth, pest.
Phil'ip-pine.
Placenza, pé-á-chen'zá.

Pierre (Saint), sēnt peer.
Piqua, pik'wa.
Pisa, pee'sá.
Pis-ca-ta-qua.
Plaquemine, plak'mēn'.
Plata (Rio de la), ré'o dá lá'plá'tá.
Po-co-ta'tí-co.
Pondicherry, pon'de-shér'-ree.
Pont'char-tráin'.
Popayan, po-pi-án', or po-pá-yán'.
Po-po-ca'te-pé'tí'.
Port-au-Prince, pórt ó-prínss.
Port Mahon, má'hōn'.
Porto Rico, pórt'o rée'ko.
Portsmouth, pórt'smuth.
Potosi, pó-to-see', or pó-to-see.
Poughkeepsie, pó-kíp'sí.
Prague, prag.
Prairie du Chien, prá'rí dy sheen.
Presque Isle, presk eel.
Puebla, pwēb'lá.
Pyrenees, pí-re-néz.

Q.

Queretaro, ká-rá-tá-ro.
Quesada, ká-sá'dá.
Quiche, kē'chá.
Quilba, kē-lá.
Quin'e-bang'.
Quito, kē'to.

R.

Racine, ras-seen'.
Ragusa, rá-guó'sá.
Rahway, raw'wá.
Raleigh, raw'lí.
Rangoon, rang-goon'.
Rap'id-an'.
Raritan, rá-rít-on.
Reading, réd'ing.
Reefie, ré-ee'fá.
Reggio, réd'jō.
Rensselaer, ren'se-ler.
Rey'kí-a-vik.
Rhénus, réemz; *Fr. pron.* ránz.
Riad, rí-ad'.
Richelieu, rē'she-loo'.
Rideau, ré'dō.
Riesengebirge, rée'zen-ga-bé-á-ge'.
Rí'ga, or ree'ga.
Riobamba, rée-o-bám'bá.
Rio Colorado, rée'o kō-lo-rá'-do.
Rio del Norte, rí'o del nort; *Sp. pron.* rée'o dél nōr'tá.
Rio Grande (Texas), rí'o gránd.
Rio Grande (S. A.), ré'o-gránd'.
Rio Janeiro, rí'o já-neer'o, or rée'o já-ná'ro.
Rivoli, rív'o-le, or ree'vo-le.
Ro'a-noke'.
Rouen, roo'en; *Fr. pron.* rwōn.
Rügen, rú'gen.
Russia, rúsh'á.
Ryswick, ríz'wik.

S.

Sabine, sa-been'.
Saco, saw'ko.
Sag-hal'ten.
Saguenay, sag'eh-ná'.
Sahara, sa-há'ra.
Said, sá-ee'd'.
Saigon, sí'gon'.
Sala-mo-ní'e'.
Salford, sawl'furd, or saw-furd.
Salonica, sal-o-nē'ka.
Saltilla, sál-teel'yo.
Saluda, sá-loo'dá.
Salvador, sál-vá-dōm'.
San Diego, sán de-á'go.

Sangamon, sang'ga-mon.
San Joaquin, sán hwa-keen'.
San José, sán áo-sá'.
San Juan; *Sp. pron.* sán áo-án', or hwaú.
Santa Cruz, sán'ta kroos.
San'tá Fé; *Sp. pron.* sán'tá fá.
Santarem, sán-tá-rén; *almost* sán'tá-rēng'.
Santiago de Cuba, sán-te-á-go de ku'ba, or dá koo'bá.
São, sōn.
Sas-katch'wa-wan'.
Sault (St. Mary), soo.
Schaffhausen, sháf-how'zen.
Scheldt, skēit.
Schenectady, sēn-ek'ta-dý.
Schoharie, sēo-há'rēe.
Schuyler, skí'ler.
Schuykill, skool'kil.
Seine, sēn.
Senegal, sēn'e-gawl'.
Semmar, sēm'már.
Seville, sev'íl, or se-víl'.
Seychelles, sá'shel'.
Shanghai, shang'hí'.
Shawangunk, shong'gum.
She-boy-gan.
Shen'au-dō'ah.
Sierra Madre, se-er'á má'n'-rá.
Sierra Nevada, se-er'á ná-vá'rá.
Sim'plon; *Fr. pron.* sán'plōn'.
Sinal, sí'ná, or sí'ná-i.
Singapore, síng'ga-pōr'.
Sioux, soo.
Sisal, se-sál'.
Skag'er Rack.
Skaneateles, skan'e-at'lees.
Sofala, só-fá-lá, or só-fá-lá.
Solssons, swás'sōn'.
Somme, som.
So-no-rá'.
Sorata, só-rí'tá.
Stettin, stē'teen'.
Steubenville, stū-ben-vil.
Stromboli, strom'bō-le.
Sncre, soo'kra.
Suez, soo-é'.
Sumatra, soo-má'trá.
Surinam, soo-rí-nam'.
Su-wá'nee.
Swansra, swop'se.
Szegedin, seg'ed'in'.

T.

Tahiti, tá-hí'te.
Tahlequah, tá'le-kwá.
Tamaqua, tá-maw'kwa.
Tamatave, tam-á-táve.
Tamaulipas, tá-mou-lee'pás.
Tampico, tám-pee'ko.
Tananarivo, tá-ná-ná-re-voó'.
Tanganika, tán-gán-yí'ka.
Tangler, tan-jeer'.
Taos, tá'os; *almost* towas.
Tapajos, tá-pá'zhōs, or tá-pá-hōs.
Taunton (Eng.), tawn'ton.
Taunton (Mass.), tán'ton.
Teche, tésh.
Teheran, téh'h-tán.
Tehuantepec, té-wán-tá-pek'.
Ten-a'ser-im.
Teneriffe, ten'er-í'f'.
Terre-Haute, té'reh-hōt'.
Thames, témz.
Thibodeaux, thí'bō-dō'.
Thibet, thí'bet, or thí-bet'.
Tierra del Fuego, té-én'áá déi fwá'go.
Tiflis, tí'flee's'.
Tim-buc-too.
Titicaca, tí'te-ká'ká.
Tivoli, tív'o-le, or té'e'vo-lee.
Tokantins, tō-kán-teens'.
Tokio, tō'ki-o.
Tonquin, ton-keen'.
To-pe'ka.
Tonlon, tōn'lōn'.
Toulouse, too'loo'z'.
Tours, toor.

Traf'al-gar', or Trá-fál'gar.
Trieste, tré-és'v'.
Trin'idad'.
Trujillo, or Trujillo, troo-aeel'yo.
Tucson, tū-sōn'.
Tuare, too-lá'ree.
Turin, or tu-rín'.
Tyr'ol; *Ger. pron.* te-röl.

U.

Ucayali, oo-kí-á'lee.
Ujiji, ú-jí'jī.
Ulm; *Ger. pron.* ólm.
Um-bá-gog.
Upervnik, oo-pés'na-vik.
Up'sal.
Uruguay, u'rōo-gwá', or oo-roo-gwí'.
Utrecht, u'trékt.

V.

Valdai, vá'l-dí.
Val'da-do-lí'd'; *Sp. pron.* val-yá-no-leer'.
Vallejo, vá'l-yá'no.
Valparaiso, vál-pá-rí-so.
Varennes, vá'ren'.
Venezuela, ven'e-zwee'la.
Vera Cruz, vá-rá-kroos.
Verde, vérd.
Vergennes, vér-jen-z'.
Versailles, ven-sálz'; *Fr. pron.* vé'sál', or vé'n-say'.
Vienna, vé-on'ng.
Vincennes, vín-sēnz'; *Fr. pron.* vín'sēn'.
Vosges, vōzh.

W.

Wachusett, wá-chū'set.
Wahsatch, wá-sách'.
Warwick (Eng.), wor'rik.
Warwick (U. S.), wor'wik, or wor'rik.
Washita, wósh'í-taw.
Wau-ke-gan.
Wener, wá'ner.
We'ser; *Ger. pron.* wá'zer.
Wheezka, wē-litch'ká.
Wilkesbarre, wílk'sbár-rá.
Williamette, wíl-lá-met.
Win'ne-bá'go.
Win-ne-pe-sau'kee.
Wis'rá's-set.
Woolwich, wóól'itch, or wóól'ij.
Worcester, wóó'ster.
Würtemberg, wúr'tem-berg.
Wy'an-dōt'.
Wy-ó-míng.

Y.

Yakutsk, yá-kootsk'.
Yang-se-kiang, yang'tse-ke-ang'.
Yar'kand'.
Ya-zoo'.
Yem'en.
Yenisei, yen'e-sá'e.
Yezo, yé-zō.
Yo-ko-há'má.
Yo-sen'í-te.
Youghiogheny, yóh'ho-gá-ní.
Yp'sí-lán'li'.
Yp'cá-tán', or yoo'ká-tán'.

Z.

Zacatecas, zá-ka-tá'kas.
Zacualpan, zá-kwál-pán'.
Zam-be-sí, or zam-bá'ze.
Zanguebar, zang'gá-bar'.
Zan'te.
Zan'z-bar'.
Zürich, zú'rik.
Zuyder, zú'der.

PACIFIC STATES AND TERRITORIES.

SPECIAL GEOGRAPHY

OF

*Montana, Idaho, Wyoming, Colorado, Utah, New
Mexico, Arizona, California, Nevada, Oregon,
Washington, and Alaska.*

DESIGNED TO ACCOMPANY SWINTON'S GRAMMAR-SCHOOL GEOGRAPHY.

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QUESTIONS ON THE MAP.

MONTANA.

Situation.—What country on the north of Montana? What territory on the east? What territories on the south and west? Between what degrees of latitude is it located? How many miles does it extend north and south? What degrees of longitude nearly mark its boundaries? How many miles does it extend east and west? How does it compare in extent with the other territories? In what great plateau is this territory located? What is its shape?

Surface.—What is the general surface of the south-western half of Montana? Of the north-eastern half? What mountain range divides it from Idaho? What important mountain system extends through the western portion? From the course of the rivers, what do you infer of the elevation of the western part? Of the eastern part? What of its comparative general elevation? What two extensive valleys in the eastern part? What one in the north-west?

Lakes and Rivers.—What are its three principal rivers? Describe the course of the longest. Of its main branch. Have these rivers many tributaries? Where do their waters reach the ocean? Describe the course of Clarke's Fork. What lake does it drain? Where does this water reach the ocean? Is this territory well watered? What parts appear to be most so?

Counties and Cities.—What three counties comprise the northern tier? What two the eastern tier? What county extends nearly across the state on the west? What part of the territory appears to be most inhabited? Name the seven southern central counties. Name and locate the capital. Name one other city in each of the central counties. Name the three counties largest in extent. What counties appear to be least settled? What important National division partly in the central-southern portion? Its extent?

IDAHO.

Situation.—What country on the north of Idaho? What division on the north-east? On the east? What state and territory on the south? On the west? What river forms part of the western boundary? What parallel marks its northern boundary? Its southern? Nearly between what meridians is it? What is its shape?

Surface.—What mountain range divides it on the north-east from Montana? What mountains in the south-eastern part? What is the surface of the central portion? What extensive valleys does it contain? What of its general elevation?

Lakes and Rivers.—What is the principal river of Idaho? Where does it rise? In what direction does it flow? Name some of its tributaries on the north and east. On the south. What river crosses the northern part of the territory? What lakes are connected with it? What lake in the south-east? What is the outlet of this lake, and into what does it flow?

Counties and Cities.—What counties border on the Snake or Shoshone River? Name the western tier of counties. Name the counties adjoining Montana. What is the north-eastern county? What is the capital, and in what county? What other principal places in the counties adjoining? In what parts of the territory are the chief settlements?

WYOMING.

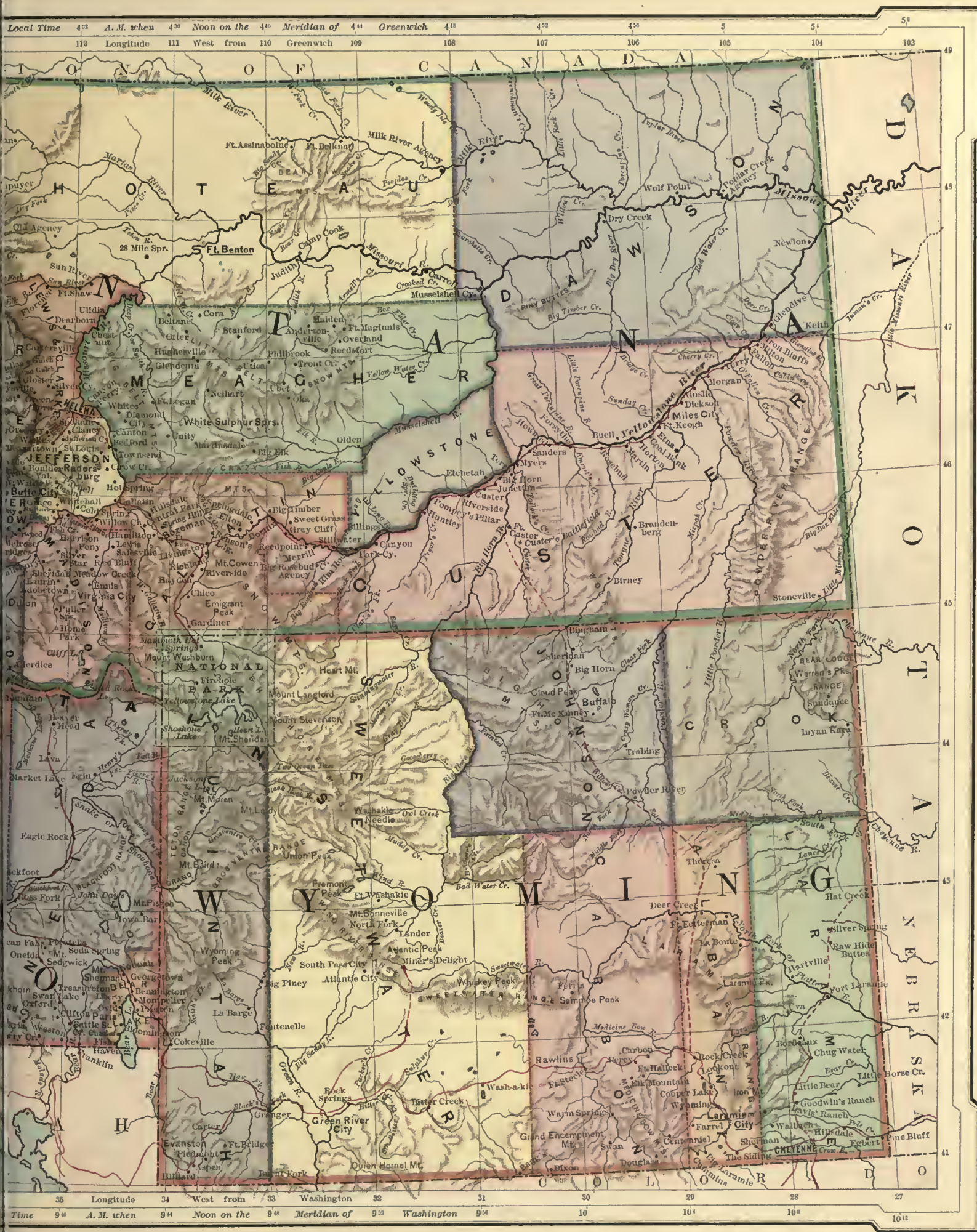
Situation.—What territory on the north of Wyoming? What territory and state on the east? On the south? What two territories on the west? What is its shape? What parallels mark its boundaries? What meridians nearly mark its boundaries? According to the scale of miles, what is its extent north and south? East and west? How many square miles does it contain?

Surface.—What is the general surface of Wyoming? Which portions are most mountainous? What mountains in the south-east? In the center? In the north? Has it many mountain peaks? Name several of the most important. Which is the highest? What do the flowing waters show as to height of land? In what directions do its streams flow? Is its general elevation high?

Lakes and Rivers.—What four large rivers have some part of their source in Wyoming? Where do the waters of each find the ocean? What is the length of the longest of these river systems, as it flows from its source to the sea? What the shortest distance across the country from its source to its mouth? [See map of U.S.] What lake in the north-western part? Connected with what river?

Counties and Cities.—How many counties in Wyoming? Which is the largest in extent? What National division to the north-west? Its dimensions in miles? Near the size of what eastern state is this Park? Name and locate the capital.





MONTANA.



YELLOWSTONE RIVER,
NEAR LIVINGSTON.

DESCRIPTION.

[Area, 145,776 square miles. Population (Census of 1880). 39,159.]

I. SITUATION AND EXTENT.

Montana reaches from the Rocky Mountain regions in the west to the great plains of the Mississippi valley in the east. It is bounded on the north by the Dominion of Canada, on the west by Idaho, on the south by Idaho and Wyoming, and on the east by Dakota. It lies between longitude 104° and 116° west from Greenwich, and between 45° and 49° north latitude.

The greatest length of the territory from east to west is 540 miles, and its width north and south is 275 miles.

II. SURFACE.

The surface for the most part is mountainous. The western portion is traversed by the main range of the Rocky Mountains, having about one fourth of the territory on the western slope, and three fourths on the eastern. Besides the main divide, there are many smaller ranges and detached groups of mountains. Between these are many beautiful and fertile valleys. The western part of the territory is rugged, while the eastern slope abounds more in plateaus and rolling prairies, which in the north stretch out into a great plain.

Beside the main range of the Rocky Mountains, the principal subsidiary ranges are the Bitter Root, Deer Lodge, Bear Paw, Big Horn, and Powder River mountains.

The *Mauvais Terres*, or bad lands, are found in the eastern part of the territory, along the lower Yellowstone River, and south of the Missouri. These lands, which have until recently been considered a desert, are now pronounced the richest of soils, with vast deposits of iron and coal, and containing many fossils.

The average elevation of the valleys and bench lands is something less than 3,000 feet, while the average elevation of the territory is about 3,100 feet above the sea-level.

The principal mountain peaks are Emigrant Peak (10,629 feet), Mount Powell (10,500 feet), Ward's Peak (10,371 feet), Mount Cowan (10,351 feet), Mount Delano (10,200 feet), and Mount Blackburn (10,134 feet).

The principal valleys are those of the Missouri, Yellowstone, Gallatin, Madison, Jefferson, Beaver Head, Deer Lodge, Bitter Root, Judith, Sun, and Prickly Pear rivers.

III. DRAINAGE.

That portion of the territory lying west of the main range of the Rocky Mountains is drained into the Pacific Ocean by Clarke's Fork of the Columbia River, and its tributaries.

This stream from Deer Lodge City to the mouth of the Little Black-foot is called locally the Deer Lodge River; thence to the mouth of the St. Mary's or Bitter Root River, the Hellgate; and thence to the mouth of the Flathead River, the Missoula.

That portion of the territory east of the main range is drained by the Missouri River and its tributaries into the Mississippi, and thence into the Atlantic Ocean.

Within the limits of Montana the Missouri averages about 1,000 feet in width. The great falls and rapids begin a short distance below the mouth of the Sun River, and extend some ten miles with a descent of 450 feet. They are remarkable for their beauty and the swiftness of their waters.

The most important tributary of the Missouri is the Yellowstone, which rises in the Yellowstone Lake in the National Park of the same name, and flows about 800 miles north-westerly, emptying into the Missouri at Fort Buford. This river is navigable for about 400 miles, and is remarkable for the beauty of its scenery and for the grandeur of its falls and cañons.

IV. CLIMATE.

While the climate of Montana is severe in some localities, it is favorably affected by oceanic influences. The warm Japan current, washing the coasts of Oregon and Washington, pours its heat into the atmosphere, which passes over the mountains in a warm wind known as the "Chinook," producing wonderful

effects upon the snows of the severest season. During the winter, westerly winds prevail; and this season resembles the climate of the Pacific coast rather than that of the colder north.

V. RESOURCES.

The resources of Montana, though to a great extent undeveloped, are of no mean order. Gold, silver, copper, iron, coal, and building-stone are among her mineral resources; while for stock-raising, agriculture, and lumbering, the opportunities are ample.

Soil.—The bottom or meadow lands along the streams are a rich black loam, which is very productive. Farther back the bench lands are more sandy, but still productive, and more or less easily irrigated. The higher tablelands produce fine grasses, but are not classed as arable.

Minerals.—Montana is rich in the precious metals. Some of the most productive mines in the history of American mining have been worked in the territory; and it has produced more gold since 1862 than those of any other state or territory excepting California.

Valuable iron ores are found in many places, particularly in Gallatin and Deer Lodge counties. In the latter an iron mountain yielding thirty per cent pure iron is found.

Rich deposits of copper are found near Butte and White Sulphur Springs, the veins carrying ores from twenty-five to fifty per cent.

Lead is found in great quantities in several places. Bituminous and lignite coals are plentiful. Hardly a county in the territory is without it, while along the Missouri, Yellowstone, and other streams, the supply is comparatively inexhaustible.

Excellent building-stone, a beautiful marble, is found in great abundance near Helena and Deer Lodge City, as well as in other places. Other geological resources are numerous and of growing importance.

Forests.—Several million acres of the mountain uplands are covered with forests, pine of several varieties and of excellent quality predominating. Other varieties are cedar, tamarack, spruce, cottonwood, ash, willow, and box-elder.

Montana abounds in beautiful scenery. Grand mountains, lovely valleys, wonderful cascades and waterfalls, and magnificent caverns, are among the most prominent features of scenery within the territory.

VI. INDUSTRIES.

The industries of Montana are chiefly those belonging to a thrifty and intelligent pioneer mountain commonwealth, rich in the natural resources of the forest, the mine, the valley, and the plain. Mining and stock-raising are of first importance; but much attention is also given to lumbering, agriculture, and trade.

Mining.—Important mining operations are carried on in almost every county in the territory, and this is the chief employment of many of the people. In addition to the great interests involved in the gold and silver mines, the copper, lead, and coal mines are also of much importance.

Stock-raising is one of the chief industries of Montana. The herding and raising of cattle, sheep, and horses afford business and employment to a great many people.

Manufactures, beyond those which are connected with mining and railroads, and the domestic industries of the people, are of minor importance.

Agriculture.—A comparatively small portion of the territory has been brought under cultivation; but considerable crops of wheat, oats, and barley are grown, while potatoes, onions, beets, turnips, and other garden products are profitable crops.

Commerce and Transportation.—The commerce of the territory consists in exchanging the products of her mines and ranges for the merchandise necessary for the people. The rivers afford a water-line to the seaboard, while railroads are rapidly pushing through the territory.

The Northern Pacific Railroad passes through the territory from east to west, while the Utah and Northern connects with it at Little Black-

foot, giving ample facilities for rail transportation in almost every direction. A branch line has been built by the Northern Pacific Railway from Livingston to the Yellowstone National Park.

Lumbering.—The extensive forests of Montana render the lumber interests of the highest importance, and this industry is already employing considerable capital and large numbers of men.

VII. GOVERNMENT.

The government of the territory is vested, under the United States Statutes, in the executive, legislative, and judicial departments. Besides the officers appointed under the provisions of the general government, the territorial officers are an auditor, treasurer, attorney-general, superintendent of public instruction, and three district-attorneys.

The governor, who is the chief executive officer, is appointed for four years, or until his successor is duly qualified, unless sooner removed by the President.

The legislative department is vested in an Assembly composed of two houses,—a Council, composed of twelve members, and a House of Representatives, composed of twenty-four members, all of whom are elected for two years. Sessions limited to sixty days are held biennially, commencing in January in the odd years.

The territorial judiciary consists of a chief justice and two associates, appointed by the President, who are styled the Supreme Court. The territory is also divided into three districts: and district courts are held in each by one of these judges, at times and places prescribed by law.

Each county has its own officers to attend to the business of the county in all local matters.

VIII. EDUCATION.

Montana has a well-organized public school system, whose entire support is derived from direct taxation. There have also been established at numerous places fine denominational and private schools.

Recent statistics show a rapid increase in the enumeration of pupils, in the number enrolled, as well as in the length of the school term and in the number of schools actually taught.

Teachers are usually well paid, and the schools are liberally supported, the average rate of taxation voted for school purposes being nearly four mills on the dollar.

IX. HISTORY.

The region now embraced in Montana has successively belonged, all or in part, to Louisiana, Oregon, Washington, Nebraska, Dakota, and Idaho. The present territory of Montana was organized under the provisions of an Act of Congress, May 26, 1864.

Nearly all of Montana came under control of the United States Government in 1803, by means of the Louisiana purchase from France.

The French had made expeditions into what is now Montana as early as 1743; but little was known of the country until an expedition was fitted out by the United States Government in 1804, and sent to explore the region lately acquired from France, under the command of two army officers, Capts. Lewis and Clarke. This expedition had for its prime object the exploration of the Upper Missouri River, and the discovery of the most direct line of water communication across the Continent. In July, 1805, they reached the point where the present Gallatin, Madison, and Jefferson rivers unite to form the Missouri. In August they crossed the Rocky Mountains, and followed the course of the Columbia River from its head waters to the Pacific Ocean, which they reached in November. In March, 1806, they set out on the return trip, reaching St. Louis in September, 1806, having twice traversed the whole length of Montana.

In 1852 gold was discovered in what is now Deer Lodge County, and during the next ten years in several other places; but it was not until 1872 that any great discoveries were made.

From this time, discoveries of both gold and silver have been frequent; and wonderful mines have been developed, which have added largely to the wealth of the territory, and have attracted a superior class of settlers to its borders.

In 1876-77 great trouble was experienced with the Indians, principally the Sioux and Cheyennes. These difficulties have all been settled, and the conditions of life in Montana are well adapted to the development of a strong and intelligent state.

X. POLITICAL DIVISIONS.

Montana contains thirteen counties and the following leading cities and towns:—

Helena (7,000), county seat of Lewis and Clarke County, and capital of the territory, is the largest and most important city. It is situated at the western base of the Rocky Mountains, on the line of the Northern Pacific Railroad.

It is the commercial and financial center of the territory, and has banks with ample capital, stores with fine stocks of merchandise, hotels, churches, and other public buildings. It has well organized and equipped police and fire departments, and is lighted by a system of electric lights. Foundries, smelters, factories, and mills of various kinds, afford employment to hundreds. It is surrounded by many and extensive gold and silver mines, which contribute to the thrift and prosperity of the city.

Butte City (5,000) is the county seat of Silver Bow County, and the most important mining town in the territory. It is a handsome, well-built city, and has an extensive business with the surrounding mines and camps. Here are located numerous mills, smelters, roasters, etc., for the treatment of the ores. It has good railroad facilities, and, in addition to its direct mining interests, is an important business center, with excellent stores, banks, and business houses in all departments of trade and merchandise. It has good schools and a prosperous and well-regulated city government.

Bozeman, the county seat of Gallatin County, is important for the mining as well as the agricultural interests which surround it. It has a good business, with all the evidences of thrift and prosperity. It is built up in good style, having fine churches and excellent public schools. It has good railroad facilities, and is a principal outfitting point for parties visiting the National Yellowstone Park.

Missoula, the county seat of Missoula County, is beautifully located on

the Missoula River, and is a thriving and prosperous town. It has extensive flouring-mills and mercantile establishments, which do a good business with the surrounding country. Churches and public schools have been established, and prosperity is visible in every direction.

Miles City, county seat of Custer County, is the most important city in the eastern part of the territory. Situated on the Yellowstone River as well as on the Northern Pacific Railroad, it has important commercial facilities, and is a prosperous and growing town. It is an important outfitting point for the mining camps in eastern Montana and Dakota, and its military business through Fort Keough is important. It has a good court-house, churches, and public schools.

Deer Lodge City, the county seat of Deer Lodge County, has a good trade with the surrounding mining and farming community. In addition to an excellent public school, it is the seat of the Montana Collegiate Institute, and a flourishing school under the charge of the Sisters of Charity.

Fort Benton, county seat of Choteau County, is one of the oldest settlements in the territory. It was for years the principal trading and distributing point for supplies on the Upper Missouri. It carries on a large trade in the supplies and merchandise required by the people, as well as in the exportation of furs and the other products of the region.

Billings, on the Northern Pacific Railroad, has a good trade with the surrounding agricultural country. Extensive irrigation ditches have been constructed in this region, and the area of cultivated lands is rapidly increasing. It is an important stock shipping point, and has railway-shops and other advantages.

Glendive is situated on the Yellowstone River, 90 miles from its junction with the Missouri. It is surrounded by a good farming country, and is a point for the shipment of cattle and sheep by the Northern Pacific Railroad to eastern markets.

Livingston, on the Yellowstone, at the foot of the Belt Range, is an important railroad station on the Northern Pacific, and the point of departure of the branch line to the National Park. Here are located extensive machine-shops and engine-houses.

Virginia City, county seat of Madison County, is also a prominent outfitting point for the Yellowstone National Park. It has fine churches, good schools, and beautiful and attractive houses.

Alder Gulch, upon which the city is located, is one of the most famous mining camps in the world, having yielded not less than \$75,000,000 in gold alone.

White Sulphur Springs, the county seat of Meagher County, is surrounded by a fine farming and grazing region, and is a flourishing business town. It is a prominent resort for tourists, hunters, and invalids. The mineral springs and baths are very popular.

Dillon, on the Utah and Northern Railroad, is an important and thriving town, having a good trade with the surrounding country.

IDAHO.

DESCRIPTION.

[Area, 86,294 square miles. Population (1880), 32,600.]

I. SITUATION AND EXTENT.

Idaho touches British Columbia on the north, and borders on six states and territories. It lies between 42° and 49° north latitude, and between 111° and 117° west longitude. In shape it is an irregular triangle, 440 miles in length, with

an average width of 200 miles. In area it is a little more than half as large as California.

II. SURFACE.

Idaho is a mountain region. Its boundary-line on the north-east is one of the main ridges of the Rocky Mountains, known in the northern part as the Bitter Root and Cœur d'Alène mountains.

This range is nearly 500 miles in length; and many of its summits reach a height of from 10,000 to 13,000 feet.

The Salmon River Mountains cross the central part of the territory. Several of the peaks of this group are between 13,000 and 14,000 feet high. Valleys. — The largest valley is that of the Snake River. There are numerous small mountain valleys from 3,000 to 5,000 feet above the sea-level.

Between the south-western spurs of the Salmon River Mountains and the Snake River is a considerable tract of arid country called the lava district of the Snake River. This region is of volcanic origin, and abounds in hot-springs and geysers. The extreme south-eastern part of the territory, belonging to the Great Basin, which extends over a large part of Nevada and Utah, partakes of the surface characteristics of those divisions.

III. DRAINAGE.

Nearly all of Idaho belongs to the basin of the Columbia River.

The extreme south-eastern part, forming the rim of the Great Basin, is drained by Bear River, which flows into Great Salt Lake.

The largest head stream of the Columbia is the Snake or Shoshone River, which rises in Wyoming, near the Yellowstone Park, and has a course within Idaho of 850 miles. The Snake River is navigable for 200 miles, from the mouth of Powder River to Salmon Falls; and also from Lewiston to its junction with the Columbia in Washington Territory. The river runs through several cañons of great depth and magnificent scenery, and its navigation is interrupted at several points by cataracts and rapids. Among the finest of these are the Great Shoshone, American, and Salmon Falls. The largest tributaries of the Snake River within the limits of Idaho are the Salmon and Clearwater rivers.

Other important tributaries of the Columbia are the Kootenai, Pend d'Oreille, and Spokane; the first two joining the Columbia in British America, and the last in Washington.

In the south-central part of the territory a number of small streams have no outlet except in the sinks and lakes of the lava-fields.

IV. CLIMATE.

On account of its altitude, Idaho has a healthful climate. Spring, summer, and autumn are delightful; and the winters, though cold, are less severe than in the mountain region east of the Rocky Mountains. The rainfall in the northern part of the territory is much heavier than in the southern part.



MOUNTAIN SCENERY.

The influence of the warm ocean currents flowing down the Pacific coast of the United States is felt here, especially in winter. Warm winds blow across the mountains from the west, and mitigate the severity of the coldest seasons. The mean annual temperature is remarkably high for the latitude, the isotherm of Harrisburg and Chicago passing considerably north of the territory.

V. RESOURCES.

The resources of Idaho consist chiefly in its mines of silver and gold, its vast extent of good grazing ground for the pasturage of live-stock, and its numerous fertile valleys.

Minerals. — Gold is found along the head waters of most of the mountain streams. There are rich silver mines in the southern part of the territory. There are also extensive deposits of coal and iron not yet worked.

Forests. — The mountains are covered up to the snow line with forests of pine, fir, spruce, and hemlock; and the wooded tracts are most extensive in the northern part of the territory.

Soils. — The soil of Idaho in the long, narrow river valleys is very productive. In the northern part of the territory the rainfall is abundant; but, in the southern half, irrigation is required in order to secure crops. The elevated mountain valleys, the mountain slopes, and the rolling plains are covered with nutritious grasses, and afford extensive grazing grounds for cattle and sheep.

VI. INDUSTRIES.

As indicated by its resources, the industries of Idaho are mainly confined to the development of her rich mineral resources and the herding of live-stock. Supplementary to these, there is a large commercial interest, and a constantly increasing production of cereals and fruits to supply the home market.

Mining. — Although gold was discovered as early as 1852, mining operations on any considerable scale began only in 1860. Since that time, both silver and gold have been produced in large quantities, and the total product to date has been nearly \$100,000,000. Lead is also a valuable incidental product in silver-mining operations.

Stock-raising. — Herding is rapidly developing into the most important and profitable industry of the territory. In 1880 the total value of live-stock was over \$2,250,000; and since that time it has nearly doubled in value.

Farming. — The principal farm and garden productions are grain, hay, vegetables, and fruits,—such as apples, pears, plums, peaches, apricots, and grapes. In 1880 the cereal productions amounted to 1,300,000 bushels, and the hay product was over 40,000 tons.

Commerce. — The trade of Idaho consists in the exchange of gold, silver, and live-stock for manufactured articles of every description.

Idaho is commercially connected with the Pacific coast and the valley of the Mississippi by the Northern Pacific Railroad, which crosses the northern part of the territory north of Lake Pend d'Oreille. The southern part of the territory is connected with the Union and Central Pacific Railroad system by the Oregon Branch and the Utah and Northern Railroad. The latter road forms a connection between the central and the northern transcontinental lines, and is an important commercial route.

Extensive stage routes and wagon transportation lines connect the various parts of the territory, and form an important part of the commercial equipment of the country. They penetrate the mountain valleys in all directions, in many cases where the railroad is impossible, and are a necessary and distinctive feature of mountain life in the territory.

VII. GOVERNMENT.

Idaho has a territorial government, based on the Act of Congress of March 3, 1863.

The *executive department* consists of a governor and secretary, appointed by the President and Senate of the United States.

The *legislative department* consists of a Council of twelve members and an Assembly of twenty-four members. The Legislature holds biennial sessions.

The *judicial department* consists of a Supreme Court (a chief justice and two associates); district courts, held at various points in the territory by the justices of the Supreme Court; probate and justices' courts. The justices of the Supreme Court are appointed by the President, with the consent of the Senate.

VIII. EDUCATION.

Idaho has a good system of public schools, under the control of a superintendent of public instruction, county superintendents, and three school trustees for each district.

IX. HISTORY.

The area of Idaho formerly belonged to Washington Territory, and was set apart as a separate organization by Act of Congress of March 3, 1863. At that time it embraced all the area of Montana and part of Wyoming. It was reduced in extent by the organization of Montana in 1864, and was given its present limits in 1868, when Wyoming was organized.

The first settlement within the territory was made in 1842, when a mission was established at Cœur d'Alène, a few miles east of the lake of that name. With this exception, there were no white settlements in the territory until about the year 1860. With the advent of the new railroad lines from the east and south, the growth of the territory has been more rapid and substantial.

X. POLITICAL DIVISIONS.

Idaho is divided into thirteen counties, and contains the following leading cities and towns:—

Boise City (1,899), in Ada County, on the line of the Oregon Branch Railroad, is the capital and largest city. It has an important trade with the mining districts in the central and western parts of the territory. It is the seat of a United States assay office, and the center of the most important financial operations in the territory.

Lewiston (739), county seat of Nez Perces County, on the Snake River, near the Oregon line, is the most important trading town in the northern part of the territory. It is at the head of nearly three hundred miles of uninterrupted navigation on the Columbia and Snake Rivers, and has a large shipping trade with points in Oregon and Washington.

Malade City (759), county seat of Oneida County, near the Utah line, is the trade center of an agricultural and lumber region which is rapidly growing in population and wealth.

Silver City, county seat of Owyhe County, is the largest town in the south-west section of the territory. It is the center of an important quartz-mining district, and is largely employed in supplying the mines and reducing their product.

Idaho City, in Boise County, is the trade center of rich mining districts, both gold and silver being mined extensively in its vicinity.

Hailey and Bellevue, in Alturas County, are important mining centers, which have recently been developed.

Challis, in Lemhi County; **Montpelier** and **Paris**, in Bear Lake County; **Placerville**, in Boise County; **Salmon City**, in Lemhi County; and **Washington**, in Idaho County,—are also among the more thriving and populous places in the territory.

WYOMING.



DESCRIPTION.

[Area, 97,890 square miles. Population (1880), 20,798.]

I. SITUATION AND EXTENT.

Wyoming Territory is situated principally on the eastern slope of the Rocky Mountains, and extends eastward into the great plain lying between these mountains and the Mississippi River.

The south-western portion slopes towards the Pacific Ocean through the Green River valley. It lies between 41° and 45° north latitude, and between longitude 104° and 111° west from Greenwich.

The length of the territory from east to west is about 360 miles, and its width north and south is about 270 miles. It is the ninth in size of all the states and territories, and the forty-sixth in population.

II. SURFACE.

The greater portion of the territory is mountainous, being traversed by the main axis of the Rocky Mountains.

The principal mountain-ranges are the Black Hills in the north-east, the Big Horn Mountains in the north-central, the Shoshone, Teton, Gros Ventre, and Wind River ranges in the west, the Laramie Range in the southeast, and the Rattlesnake and Sweetwater mountains in the central portions of the territory.

Interspersed between these mountain-ranges are extensive and beautiful plateaus of level and fertile tablelands.

The principal mountain peaks are Mount Hayden (13,858 feet), Fremont Peak (13,570 feet), Mount Moran (12,800 feet), Washakie Needles (12,250 feet), Chimney Mountain (11,853 feet), and Elk Mountain (11,551 feet).

The mean altitude of the Laramie plains, one of the principal plateaus, is about 7,000 feet; while Bridgers Pass, in the Medicine Bow Mountains, is 11,410 feet.

Yellowstone Lake is 7,788, Shoshone Lake 7,670, and Lewis Lake 7,750 feet above the level of the sea.

III. DRAINAGE.

Wyoming, being situated mainly in the highest parts of the Rocky Mountains, is the source of innumerable rivers. Three of the largest rivers on the continent receive waters through her borders.

The Missouri River, through the North Platte, drains the south-eastern part of the territory; and through the Cheyenne, Powder, and Big Horn, the northern portion. The Snake River, which eventually becomes a portion of the great Columbia River of the north-west, and empties into the Pacific Ocean, has its source in the north-western portion of this territory; while

the Green River, which drains the south-western portion, finds its way out through Utah and Colorado into the Colorado River, and thence into the Pacific Ocean through the Gulf of California.

IV. CLIMATE.

The climate of the territory is greatly varied. The remoteness of the ocean, together with the altitude, exert great influence on the temperature.

In the more exposed regions the winters are cold and severe; but the summers are delightful for their mildness, and for the invigorating influences which are experienced by the traveler. On the plains there are seasons of severe storm, when the winds from the mountains sweep down upon them in great fury; but these are of brief duration. The general character of the climate in these regions for the greater part of the year is favorable to health and comfort.

V. RESOURCES.

The resources of Wyoming are varied as its surface, and of great importance, but in the main they have not as yet been fully developed.

Soil.—The soil on the plains is of unsurpassed fertility. Though irrigation is necessary, as a rule, to successful farming, the numerous streams which traverse the territory afford ample facilities for this purpose.

Hundreds of thousands of acres of pasture-lands, clad with nutritious grasses, afford abundant range for millions of cattle. The pasturage continues throughout the year, as during the winter the snows are dry, and the winds drift them into ridges; so that it is of rare occurrence that a herd can not find plenty of grass.

Minerals.—Gold and silver have been discovered in several places in the territory; and the Black Hills, the Wind River, and Big Horn Mountains, all have their thrifty and prosperous mining camps.

Copper ores in great abundance have been developed at Hartville and near Cheyenne, in the south-eastern part of the territory.

Valuable iron ores are found in the southern portion of the territory near Rawlins, and near Laramie in the south-east.

A superior quality of soft coal is known to exist in great abundance in many parts of the territory, especially near Carbon, Evanston, and Rock Springs.

Soda, gypsum, mica, graphite, kaolin, fire-clay, antimony, and sulphur are also among the mineral resources of the territory.

Forests.—Portions of the territory are finely timbered, the varieties of pine spruce, cedar, and cottonwood of good quality being most frequent, and covering many thousands of square miles.

Water.—The many mountain-streams of the territory afford abundance of water-power for the handling of machinery, for mining, and for irrigation.

Scenery.—The scenery throughout the territory is beautiful and grand. The mountain parks and valleys are much resorted to by pleasure-seekers and sportsmen. Mineral springs, hot and cold, in great variety, are abundant; and pulmonary diseases are favorably affected by the waters and the climate.

VI. INDUSTRIES.

The industries of Wyoming are rapidly increasing in variety and extent, and already employ large sums of capital.

Grazing.—Cattle-raising is the chief industry of the territory.

While cattle often go the year round without other feed than the range affords, the most successful stockmen are now providing against emergencies by harvesting and stacking, at the proper season, vast quantities of the grasses which make most excellent hay.

Sheep-raising is also an important industry of Wyoming, and there are many extensive herds yielding a handsome income.

Farming.—Increasing attention is being given to this industry, and the principal products are hay, potatoes, and garden vegetables.

Lumbering.—Important lumbering operations are carried on in several localities; and railroad-ties, telegraph-poles, laths, shingles, and building and fencing boards are produced in large quantities.

Manufactures.—Considerable attention has been given to the manufacturing interest; and extensive rolling-mills, railroad repair-shops, and wagon and carriage shops are in successful operation.

Commerce.—The commerce of the territory is almost exclusively by railroad, and consists of the trade in cattle, and merchandise generally. The Union Pacific Railroad passes through the south side of the territory, and has done much towards the development of the resources of the territory. The Oregon Branch of this line starts from the town of Granger, in the western part of Wyoming, and constitutes an important factor in the business interests of the territory.

VII. GOVERNMENT.

The territory is governed under the laws of Congress; and the governor and other principal officers are appointed by the President and confirmed by the Senate of the United States.

The laws provide for a governor and other territorial officers, who constitute the executive branch of the government.

The legislative department of the government is vested in a Legislative Assembly, made up of two houses,—the Council, or upper house, and the House of Representatives,—both elected for two years. Sessions are held biennially in the even years, and are limited to sixty days.

The judiciary power is vested in a Supreme Court with three judges, who are appointed by the President of the United States, and hold office for four years; district courts, circuit courts, and others of inferior jurisdiction, whose officers are elected by the people for terms of varying length.

The right to vote is extended to women equally with men at all territorial elections.

VIII. EDUCATION.

Liberal provisions have been made for the support of public schools. A territorial superintendent is at the head of the system, and county superintendents and district boards have charge of the details, which are generally well provided for.

A teachers' institute is provided for, which may arrange and prescribe a course of study for uniform use throughout the territory. Women may vote at the school elections, and are eligible to hold school offices. Parents are required to see that their children between the ages of seven and sixteen attend school during three months in each year. The larger towns maintain excellent graded schools, good buildings are provided, and the schools receive liberal and popular support.

IX. HISTORY.

The greater portion of this territory was acquired by the United States, through the "Louisiana Purchase," from France in 1803, though a portion of the south-western section came under the protection of our government by the "treaty of 1848" with Mexico.

The territory was organized by Act of Congress, July 25, 1858.

X. THE NATIONAL PARK.

The Yellowstone National Park occupies the north-western corner of the territory, and affords the tourist and pleasure-seeker a greater variety of natural and scenic attractions than any other locality on the continent.

The Yellowstone Lake, 7,788 feet above the level of the sea, is remarkable for the beauty and sublimity of its surroundings. The geysers are wonderful alike to the pleasure-seeker and the scientist, while the general mountain scenery rivals that of any other region in the world.

XI. POLITICAL DIVISIONS.

Wyoming is divided into seven counties, and contains the following leading cities and towns:—

Cheyenne (6,000), the capital of the territory, and its chief city, is an important railway center, 106 miles north of Denver, and 516 miles west of Omaha.

It is the leading shipping and outfitting point for the great mining and stock-raising regions of Dakota, Wyoming, and Montana. Banking-houses with ample capital, large wholesale stores, and many fine private residences, churches, and schools, indicate the wealth, enterprise, and industry of the community.

Laramie City (3,500), "The Gem of the Plains," 57 miles west of Cheyenne, is also a thriving, growing city. Extensive rolling-mills, owned and operated by the Union Pacific Railroad, afford employment for several hundred men, and have a capacity of 25,000 tons of railway iron per annum. In addition to these, large railway machine-shops are located here. In the immediate vicinity are rich deposits of coal, iron, lead, and other minerals. A large freighting and forwarding business is done with the surrounding ranches and camps.

Rawlins, situated 709 miles west of Omaha, is the county seat of Carbon County. Here are located extensive machine-shops which afford employment to large numbers. It has a fine business in shipping and outfitting for the Big Horn mining regions, and is an important point for the shipment of cattle. Iron ore is mined near by, and a superior metallic paint has been made in this vicinity.

Evanston, the county seat of Uintah County, is a well-built and flourishing town, with railway machine-shops, and a large trade in lumber and charcoal. It is in the immediate vicinity of extensive coal-mines, which yield half a million tons per annum.

Carbon, on the Union Pacific Railroad, 657 miles west of Omaha, is principally engaged in mining and the business tributary to the mining interests.

Rock Springs, situated 830 miles west of Omaha, is an important coal-producing town. It also has a large business in the handling and shipping of cattle to the eastern markets.

Green River, the county seat of Sweetwater County, is a railroad town, with machine-shops, round houses, etc. It is in the midst of a fine agricultural region, and has a good trade with the surrounding country.

Sherman, situated upon the main range of the Rocky Mountains, at an altitude of 8,242 feet, commands a grand view of the Laramie plains, with their countless herds of cattle and beautiful river scenery. A monument to the memory of the projectors of the Union Pacific Railway has been erected on the summit in the village.

Hilliard is a lumber town, situated 943 miles west of Omaha. A flume 33 miles long has been constructed to transport lumber, ties, telegraph-poles, and cordwood from the lumber-camps to the railroad. Other industries are the manufacture of charcoal and the smelting of ores which are shipped from Utah.

COLORADO.



QUESTIONS ON THE MAP.

Situation. — What is the shape of Colorado? What parallels mark its northern and southern boundaries? Nearly between what meridians is it? How many miles in length according to the scale of miles on the map? How many in width? What state and division on the north? What states on the east? What divisions on the south? On the west?

Surface. — Of what great plateau is Colorado a characteristic part? Where in this plateau is it located? What general mountain range is prominent here? Give the names of some of its minor divisions. Name some of the principal mountain peaks. Give their location. What is the surface in the western two-thirds of the state? The eastern third? Where are the North, Middle, and South parks?

Rivers. — What four large rivers have their sources in this state? [See also other maps of this region.] Which flow west? Which south? Which east? Where does each reach the ocean? What do these rivers indicate in respect to the height of land?

Counties and Cities. — Name the counties crossed by the 105th meridian. By the 106th meridian. How many counties has this state? [In what county do you live? In what part of the state? Its county seat?] Name and locate the state capital. What is the second city in size? What other principal cities, and where located? In what natural region are most of the cities and towns located? What do you judge from the map to be peculiar to the eastern tier of counties?

DESCRIPTION.

[Area, 103,925 square miles. Population (1880), 194,327.]

I. POSITION AND EXTENT.

Colorado is one of the Pacific Highland States, and the most western state having an eastern drainage. It is situated partly in the Rocky Mountain region, and partly in the great plain of the Mississippi valley, between latitude 37° and 41° north, and longitude 102° and 109° west from Greenwich.

Its length from east to west is about 380 miles, and its width north and south about 275 miles. It is the thirty-fifth state in population, and the fourth in area.

II. SURFACE.

Nearly one-half of the state—its eastern end—is a great plain, through which course the upper tributaries of the Arkansas and Platte rivers, rendering its surface beautifully undulating; but, in the main, this portion of the state is very level, presenting much the appearance of a vast sea of grass.

The western division is traversed by the various ranges of the Rocky Mountains, which here attain their greatest altitude, with broad tablelands or plateaus on their western slope.



GRAND CAÑON OF THE GUNNISON.



GARDEN OF THE GODS.





UTAH AND COLORADO

EXPLANATION.
Cities of over 2,000 Inhabitants are underlined
County Towns + Railroads



The Front or Colorado range, in the north-central, and the Sangre de Cristo range in the south-central portions of the state, rising through a series of verdure-clad foot-hills from the broad plains on the east, form part of the great western watershed of the continent.

West of these, the Park, Saguache, San Juan, Uncompahgre, Roan, and Elk ranges occupy the greater part of the state. Interspersed among these ranges of mountains are numerous "parks," or elevated, irregular plateaus, where may be found, shut in by peaks clad in perpetual snow, vast areas of valuable fertile lands clothed with verdure, and dotted with the homes of an enterprising and thrifty agricultural people.

The most important of these natural gardens, with their approximate areas and elevations, are,—

North Park.—Area, 2,500 square miles; elevation, 9,000 feet.

Middle Park.—Area, 3,000 square miles; elevation, 8,500 feet.

South Park.—Area, 2,200 square miles; elevation, 9,500 feet.

Estes Park.—Area, 100 square miles; elevation, 7,500 feet.

San Luis Park.—Area, 8,000 square miles; elevation, 7,500 feet.

The principal mountain-peaks, with their elevations, are,—

Mount Blanco	14,464	Mount Rosalie	14,340
Mount Evans	14,330	Uncompahgre Peak	14,235
Pike's Peak	14,147	Gray's Peak	14,341
Mount Elbert	14,351	Long's Peak	14,271
Holy Cross	14,176	Mount Massive	14,298
Spanish Peak	13,620	Buckskin Mountain	14,296

III. DRAINAGE.

While Colorado has no navigable rivers, her position upon the very crest of the continent makes her the source of many streams, part of them finding their way through the Mississippi and Rio Grande into the Atlantic Ocean, and part through the Colorado into the Pacific.

The principal streams of the Mississippi system, which originate in this state, are the North Platte, which rises in the Park and Front Mountains, and the South Platte, which rises in the Front Mountains in the north-central part of the state, together forming the Platte River of Nebraska, which empties into the Missouri at Plattsmouth; the Republican, which rises in the eastern part of the state, and flows out through Kansas and Nebraska into the Missouri at Kansas City; and the Arkansas, which has its source a little north and west of the center of the state, and flows south-westerly through grand gorges and cañons into the great eastern plain, passing out of the state into Kansas near the 38th parallel of north latitude, and continuing an easterly and south-easterly course to the Mississippi.

The Rio Grande rises in the San Juan region in the southern part of the state, passes south into New Mexico, in longitude 106° west, flowing south through that territory, and south-east between Texas and Mexico, into the Gulf.

The Colorado River, which empties into the Pacific Ocean through the Gulf of California, receives as tributaries from this state the San Juan, which rises in the south-west corner of the state, and flows out through New Mexico; the Grand, which flows west into Utah; and the White and Yampa, tributaries of the Green River of Wyoming, which drain the north-western portion of the state.

IV. CLIMATE.

The state being situated in the heart of the Rocky Mountains, far removed from the modifying influences of the ocean, its climate partakes of the character of every latitude. The rigors of a northern winter, and the balmy breezes of an Italian summer, may both be experienced within a day's journey.

The extreme dryness of the atmosphere tempers the severity of the cold in winter, and the exhilarating effects of the altitude make the summers most delightful. Pulmonary affections are greatly benefited by the climate and waters.

The mean annual temperature is about 50°.

The rainfall is scant for agricultural purposes, and is exceedingly varied.

The influences of irrigation and agriculture will, it is anticipated, promote the quantity as well as the uniformity of the rainfall.

V. RESOURCES.

Soil.—The soil of Colorado is naturally fertile; but the insufficiency of the rainfall makes irrigation a necessary adjunct of successful agriculture in most parts of the state.

The most productive lands are found in the parks and valleys of the South Platte, Clear, Cherry, South Boulder, San Luis, and Rio Grande, while the level lands in all parts of the state yield a fruitful harvest wherever they can be artificially watered. The great plains in the eastern part of the state, as well as the parks and plateaus of the mountain regions, afford excellent pasturage the year round.

Minerals.—Gold was first discovered in Colorado in 1858; and the more important deposits are found in what miners call "true fissure" veins or lodes, and in "chimneys" having the appearance of the craters of extinct volcanoes.

These deposits are extremely rich. Many of them have been penetrated for hundreds of feet without any apparent reduction of the quantity of the ores. The most productive mines are located in Gilpin County; but gold is found in one form or another throughout all the mountainous portions of the state.

Silver was discovered as early as 1864 near Georgetown, but it was not until 1870 that any important results were reached. The importance of the silver deposits was never suspected until the great mines of carbonate ores were opened near Leadville in 1877, about which time the silver excitement reached its height.

Like gold, the silver is found in all the geological combinations. "Native silver," "ruby silver," "silver glance," "smelting ore," "free-milling ore," "mill dirt," "stamp rock," "sand carbonates," etc., are terms used in describing them, while they are found in veins, lodes, fissures, contracts, sedimentary deposits, and other forms. Silver in various forms is found in almost every county in the mountainous part of the state, Lake producing the greatest quantity, followed by Gilpin, Clear Creek, Boulder, Summit, Gunnison, Pitkin, Custer, San Juan, Hinsdale, Dolores, Grand, Saguache, Chaffee, Ouray, Park, and others. The principal deposits are found in beds or strata between layers of porphyry and limestone.

Coal of superior quality is found in many parts of the state. There are thousands of square miles underlaid with valuable deposits, and the supply is comparatively inexhaustible.

An excellent lignite, adapted to domestic use and to railway purposes, is mined in large quantities in the vicinity of Boulder. Bituminous varieties are found in the vicinity of Trinidad, as well as in the south-west near Durango, and in the regions around Gunnison. Anthracite has been discovered in several places; but its extent and value is as yet comparatively unknown.

Iron ores in many of the valuable varieties have been discovered in several parts of the state, and are abundant in the immediate vicinity of the coal-measures.

Quarries of excellent granite, limestone, sandstone, etc., have been opened, and marbles of superior texture and color are abundant.

Among the other minerals of Colorado are agates, alum, amethyst, antimony, arsenic, baryta, bismuth, chalcedony, chalk, copper, fire-clay, garnet, graphite, gypsum, jasper, manganese, mica, onyx, opal, salt, soda, sulphur, talc, topaz, tufa, turquoise, etc.

Mineral springs are found in many parts of the state. Waters, both hot and cold, containing salt, soda, sulphur, iron, etc., are of frequent occurrence, and their medicinal properties make them the resort of thousands of invalids and tourists.

The forests of Colorado are not rich in valuable timber; but the mountain-regions are abundantly supplied in the lower altitudes with many varieties of pine, spruce, fir, aspen, hemlock, and cedar.

VI. INDUSTRIES.

Mining. — As the wealth of Colorado lies in her mines, so the principal industry of her people is devoted to their working. The digging and raising of the ores to the surface is a work of great labor, and affords profitable employment to thousands of men. These ores are then treated by various processes known to science, resulting in the extraction of the precious metal which becomes the bullion of commerce.

The ore beds, or veins, or contracts, are reached through shafts, vertically, or through tunnels into the face of the mountains, horizontally. All these openings have to be made with much labor and skill, and heavy timbers are placed to protect the sides from caving in upon the workmen.

The ores, as they come from the mine, are generally sold by the mine-owner to the mills or smelters, where the reduction to bullion is made by various processes of pulverization by stamp-mills, roasting-ovens, and smelting-furnaces.

In many cases the ores are transported hundreds of miles before treatment, while in others they are treated near the mines by works erected with special reference to the peculiarities of the ores of the locality.

There are many different methods of reducing ores. Some of the processes involve the principles of chemistry to a wonderful degree, while others are very simple. In many cases the refuse of one course of treatment is made to pay a handsome profit when submitted to another and different process.

Agriculture. — While mining has been the great business of Colorado, agriculture affords employment to an industrious and numerous portion of her people.

The principal crops are wheat, oats, barley, corn, potatoes, hay, and the products of the garden. Lands which a few years ago were comparatively worthless have been made productive by the introduction of a system of irrigation; and experiments are now being made in the eastern portion of the state with artesian wells, from which it is hoped an ample supply of water for irrigation will be afforded in localities remote from the mountains.

Cattle-raising is an important industry. The climate is favorable, and the native grasses are abundant, affording nutritious food all the year round.

Wool-growing is also carried on to a large extent, and is a productive and profitable business.

Fruit-growing has received considerable attention, and small fruits yield abundant and paying returns.

Manufactures. — The most important manufacturing interests in Colorado are those which are represented by the establishments for treating ores, though iron and steel works, foundries, and rolling-mills have already been put in operation. The developments of the iron and coal fields will undoubtedly enhance the interest of capitalists in these enterprises.

The commerce of the state is principally with the east, and by railroad. The interchange of bullion, cattle, wool, etc., the products of Colorado industry, for the merchandise of the eastern markets, makes a business of great magnitude.

Transportation. — The railway systems which center in this state are numerous and important. "The Colorado Pool" is a powerful factor in the railway interests of the west.

Important divisions of the Union Pacific System radiate from Denver in four directions. The Denver and Rio Grande, the Burlington Route, the Denver and New Orleans, and the Atchison, Topeka, and Santa Fé, are all important lines.

VII. GOVERNMENT.

The state government consists of three departments, — the executive, the legislative, and the judicial.

The officers composing the *executive department* are a governor, lieutenant-governor (who is also president of the Senate), secretary of state, auditor, treasurer, attorney-general, and superintendent of public instruction, all elected by direct vote of the people, and holding their respective offices for the term of two years.

The *legislative department* consists of a Senate and House of Representatives. Regular sessions are held biennially, convening on the first Wednesdays in January of the odd years. The Senate is composed of twenty-six members, elected for four years; and the House of Representatives, of forty-nine members, elected for two years.

The *judicial department* is administered through a supreme court, the three judges of which are chosen for nine years; six district courts, with six judges, each elected for six years; county courts, with one judge in each county, elected for three years; and justices' courts, which are presided over by justices of the peace, who are chosen for two years.

In the Congress of the United States, Colorado is entitled to two senators and one representative; and the state has three votes in the Electoral College in choosing a President of the United States.

VIII. EDUCATION.

The public-school system was early made a prominent feature in the policy of the state.

The organization consists of a state superintendent, state board of education, state board of examiners, county superintendents, and district boards. Provision is made for graded schools. State and county teachers' associations have been provided for.

The laws require at least sixty days of school in each district annually; but the average duration of the schools is much longer, while in the cities and towns the schools are in session from a hundred and twenty to two hundred days.

The state institutions are the State University located at Boulder, School of Mines at Golden, Agricultural College at Fort Collins, Mute and Blind Institute at Colorado Springs, and Industrial School at Golden, all of which are liberally provided for.

Numerous private institutions of high order have been established.

IX. HISTORY.

Territorial History. — The territory included within the borders of Colorado was acquired, part from the French through the "Louisiana Purchase" in 1803, and part from Mexico through the "treaty of 1848."

Prior to the acquisition of that part of the territory which came to us from France, no important explorations or researches had been made in this region. In 1803 the government sent out a small expedition under Lieut. Pike. Later, in 1819, Col. S. H. Long led another expedition, neither of which made any foothold or discovery of importance. Private enterprises, as late as 1832, were unsuccessful in the accomplishment of any good results; and it was not until Capt. Fremont, in 1842 and 1844, had made surveying and exploring expeditions, that the government knew any thing of the character of its newly acquired domain.

From this time until 1858, fur-traders, explorers, emigrants bound for the Pacific coast, and Mormons on their way to Utah, were the only white men who ventured into these regions. In 1858, however, a prospecting party from Georgia established a lodgment on the Platte near the present site of Denver. They were soon joined by others, who, hearing of the discovery of gold, flocked to the new Eldorado. Several towns were established, and efforts to form a territorial government were at once inaugurated.

A territorial government was not fully consummated till 1861, when, with William Gilpin as governor, Colorado first became an organization under the United States. The young territory grew rapidly in

population, and had hardly acquired a territorial standing before efforts were made to secure state privileges, which came near being successful in 1865, when President Johnson vetoed the "enabling act" passed by Congress for that purpose. Continued prosperity attended the territory, however, and the tide of immigration flowed in unabated.

State History.—In the winter of 1874-75 another effort was made to secure a state government. These efforts were successful; and the necessary laws having been enacted by Congress (March 3, 1875), a constitution adopted by the people (July 1, 1876), and state officers elected (Oct. 3, 1876), the state government of Colorado was inaugurated in November, 1876, making the thirty-eighth state in the Union. From the date of its admission, Colorado is fitly called the "Centennial State."

X. POLITICAL DIVISIONS.

For purposes of local government the state is divided into counties, of which there are at present thirty-eight. The leading cities and towns are as follows:—

Denver (35,630) is the capital of the state, its commercial metropolis, and the chief railroad center of this part of the United States. The city was first settled in 1858, and for about fifteen years had a moderate and steady growth, which gave place in 1872 to a remarkable era of prosperity, which has not yet ended.

The city is beautifully laid out, and is located at the junction of Cherry Creek and the South Platte River, a few miles from the base of the foot-hills which rise and gradually recede into the mountains. Long's Peak and Pike's Peak are both visible in the distance.

Denver has a well-ordered city government, water-works, gas-works, electric-lighting establishments, telephone, street-railways, and all other conveniences of a metropolis.

Among the finest public buildings are the Union Depot, Tabor Grand Opera-House, Tabor Block, Windsor Hotel, St. James Hotel. There are also a mining and industrial exposition of great proportions and interest, a branch of the United-States Mint, a board of trade, and a stock exchange.

The public-school system of the city of Denver is of special excellence. A high school and numerous ward schools have been provided; and no expense has been spared to keep the requirements up to the demand.

Leadville (14,820), the county seat of Lake County, is the second city in size and importance in the state. This city is situated near the Arkansas River, on California Gulch, and was settled in 1876. The surrounding scenery is grand and imposing. It is the leading silver-mining center in Colorado.

Surrounded by the richest mines in the state, it is pre-eminently a mining city. Numerous large smelting and reduction works, with stamp-mills and other mining interests, afford the principal business of the city.

The city has a good system of public schools, with excellent buildings, which are a credit to the enterprise and taste of the people.

Pueblo, county seat of Pueblo County, on the north bank of the Arkansas River, and **South Pueblo**, on the opposite side of that stream, constitute one of the most populous and important manufacturing centers of the state. Among the most prominent industries are steel and iron foundries, rolling-mills, nail-mills, car-shops, smelters, etc.

A rich agricultural region lying to the east is tributary to the cities, and important railroad lines center here.

Both cities are efficiently organized with good local governments, water-works, and fire departments, and maintain excellent systems of public schools.

Gunnison City, the county seat of Gunnison County, was laid out in 1879. It has gas and water works, theaters, banks, churches, newspapers, and public schools. It is connected with Denver by two lines of railway, and is the distributing point for the many mining-camps in South-western Colorado. Important manufacturing establishments are located here.

Boulder, the county seat of Boulder County, is an important railroad center, and has a large and growing trade and business. The coal-mines in the vicinity afford its most important industry; but extensive gold and silver mines, and important manufacturing interests, all contribute to its prosperity.

Boulder is also a literary center of the state, being the seat of the University of Colorado.

Colorado Springs, the county seat of El Paso County, was settled in 1871, and has already become a flourishing and prosperous city. It is situated in the vicinity of many points of interest to the tourist, and is the resort of thousands who make it the base of their excursions to Manitou, Pike's Peak, the Garden of the Gods, Monument Park, Engleman's Cañon, etc. It has many fine buildings, and has superior educational facilities, with excellent public schools. Colorado College and Deaf-Mute Institute are located here.

Georgetown, the county seat of Clear Creek County, is the oldest and one of the most important mining towns in the state. It has a flourishing mining business, and large sampling and reduction works. There are many points of interest in the vicinity, and it is an important radiating point for miners and tourists.

Alamosa—situated on the Rio Grande in the famous San Luis Valley, is surrounded by grand scenery, and is the center of a flourishing business, in which the cattle, wool, and farming interests are important features.

Aspen—the county seat of Pitkin County, was laid out in 1879, but has already become a flourishing community, with good stores, smelting-furnaces, etc.

Black Hawk is situated about 35 miles west of Denver, in Gilpin County. The many gold and silver mines in the vicinity make it one of the important mining towns of the state. It is closely allied with its neighbor, Central City, in business and social intercourse.

Breckenridge—the county seat of Summit County, is situated on Blue River, on the Pacific slope of the main range. It is a thriving town, with smelters and other mining adjuncts. It has good schools and a great variety of business interests.

Buena Vista—the county seat of Chaffee County, is situated on the Arkansas River, at the junction of the Denver and Southern Pacific Division of the Union Pacific Railway with the Denver and Rio Grande. It has a flourishing business, and good banks, churches, and schools.

Cañon City—the county seat of Fremont County, is situated at the foot of the mountains, and on the left bank of the Arkansas River. It has a good business with the farming community around it. It commands some of the finest mountain scenery in the world. The state penitentiary is located here.

Del Norte—the county seat of Rio Grande County, is the center of a fine farming community, and enjoys a good trade with the surrounding country.

Durango—the county seat of La Plata County, is situated on the Pacific Slope, and is surrounded by fine farming-lands, and some of the best timbered lands in the state. The coal-mines near by are an important element of its prosperity.

Fort Collins—the county seat of Larimer County, was settled as a colony in 1871. It is a favorite resort for tourists visiting the neighboring mountain-parks. It is situated in a fine farming section, and supports good public schools and a large public library.

Greeley—the county seat of Weld County and the principal market-town in its portion of the state, was organized as a colony in 1870. It has a fine business with the surrounding country, and supports an excellent public school.

Longmont—situated in Boulder County, is an important town in a fine farming region. It is beautifully laid out, and is a popular stopping-place for parties visiting Estes Park and other contiguous mountain-resorts.

Manitou is one of the most noted pleasure-resorts in the state, and is well supplied with every thing required by the invalid or the tourist.

Rico—the county seat of Dolores County, and an important mining town, has stamp-mills, smelting-works, banks, churches, and excellent schools, both public and private.

Other important mining towns are Adelaide, Alma, Alpine, Ashcroft, Bonanza, Caribou, Coal Creek, Cochetopa, Columbia, Crested Butte, Fair play, Frisco, Garfield, Gold Hill, Gothic, Irwin, Kokomo, Lake City, Nevada, Ohio City, Ouray, Pitkin, Red Cliff, Robinson, Rosita, Silver Plume, Silverton, Teller, Tin Cup, and Tucson.

Box Elder, Como, Deer Trail, El Moro, El Paso, Elbert, Evans, Fort Garland, Gardner, Grand Junction, Hugo, Kit Carson, Kiowa, La Junta, Loveland, Saguache, and Walsenburg are important from their agricultural surroundings.

The Alpine Tunnel, Antelope Springs, Brookvale, Cottonwood Springs, Dome Rock, Elkhorn, Estabrook Park, Estes Park, South Park, Grand Lake, Grant, Green Lake, Hot Sulphur Springs, Idaho Springs, Morrison, Middle Park, North Park, Pagosa Springs, Poncho Springs, Soda Springs, Twin Lakes, and Wagon-Wheel Gap are noted as the resort of tourists and pleasure-seekers.

UTAH.



SALT LAKE CITY.

QUESTIONS ON THE MAP.

Situation. — What divisions bound Utah on the north? What state on the east? What territory on the south? What state on the west? Over how many degrees, north and south, does it extend? According to the scale, how many miles?

Surface. — What general natural regions is the surface divided into from north to south? Name of the principal mountain range? Names of its minor divisions?

Lakes and Rivers. — What large lake in the northern part? What other lakes, and where? Have these lakes surface outlets? What is the largest river? Describe its course. Where do its waters reach the ocean? Name some of its chief tributaries. What other considerable streams? Into what bodies of water do they flow?

Counties and Cities. — In what part of Utah is the principal tier of settled counties? Extending in what direction? Name the counties north of the central county. Name those south of it. Name and locate the capital. What are the largest cities north of it? What south of it? [Name your county. Its county-seat. In what part of the territory is it?]

DESCRIPTION.

[Area, 84,970 square miles. Population (in 1880), 143,963.]

I. SITUATION AND EXTENT.

Utah occupies the eastern part of the Great Basin and the western part of the upper valley of the Colorado. It is included between 37° and $42^{\circ} 10'$ north latitude and 109° and 114° west longitude.

The Great Basin is a remarkable depression of land lying between the Sierra Nevada and Wahsatch mountains, mostly in Utah and Nevada. Much of the land is an arid waste, with no streams and little vegetation. The waters of the rivers have no outlet to the sea, and disappear in sinks or in salt lakes.

In shape Utah is nearly a parallelogram, 350 miles in length north and south, and 280 miles in width. In area it is a little more than half the

size of California, and nearly the same size as Idaho, Minnesota, or Kansas.

II. SURFACE.

As indicated by its location, Utah is divided into two great plateau regions, differing, however, very widely in all their surface features. The eastern and western parts of the territory are of about the same elevation, — 5,000 feet above the sea-level.

Mountains. — Rising from this plain, the chief mountain range is the Wahsatch, which extends nearly north and south the entire length of the territory.

The Uintah Mountains are an eastern spur of the Wahsatch, extending at right angles from the main range to the north-eastern boundary of the territory. The highest elevations in the territory are in this minor range, which, in the cases of Reed's and Hayden's peaks, reach to nearly 14,000 feet above the sea. The highest points in the Wahsatch Range are Mounts Nebo and Baldy, each about 12,000 feet high.

The western part of the territory consists in part of barren alkaline deserts, or of plains covered with a scattering growth of sage-brush and grease-wood. Toward the Nevada line are several short ranges of mountains.

Valleys. — Extending from the crests of the Wahsatch Range are numerous spurs and lateral ranges, between which are found many very fertile valleys supporting a thrifty and prosperous people.

Among the more important of these valleys are the Salt Lake, Bear Lake, and Utah valleys, adjacent to the lakes from which they are named; the Bear River, Weber, Upper and Lower Sevier, Ogden, and Provo valleys, lying along the rivers of the same name; and the Pah Vant, Beaver, Parowan, and Tintic valleys, named after the mountains in their immediate vicinity.

Outside of the Great Basin, the most important valley is that of the Virgin River, in the south-western part of the territory.

The high tablelands of Eastern Utah south of the Uintah Range partake somewhat of the surface features and characteristics of Colorado and Wyoming.

III. DRAINAGE.

Western Utah. — West of the Wahsatch Range there are no waters that reach the ocean. All the streams flow into salt lakes, or disappear in sinks in the desert.

Great Salt Lake, which receives the drainage of about 20,000 square miles, is the largest saline lake in the United States. It is 80 miles long and 40 miles wide, and covers an area of over 3,000 square miles.

Its waters contain 22 per cent of salt. The largest streams flowing into it are the Bear River, Weber River, and the Jordan.

Utah Lake is a fresh-water lake, having the Jordan River for its outlet.

Sevier River flows into Sevier Lake, a body of saline water 20 miles long and 10 miles wide.

Bear Lake, lying partly in Utah and partly in Idaho, is remarkable for its beauty and picturesque scenery.

The rivers within the rim of the Great Basin are all short streams, rising in the mountains, and are especially serviceable for the irrigation of the agricultural valleys through which they flow.

There are abundant indications to show that a large part of the Great Basin was once occupied by a great inland sea, of which the largest remnant is now the Great Salt Lake. There are also indications that this gradual subsidence is still going on, and that the great saline lake is lowering its level year by year.

On account of the great percentage of saline matter in solution in the lake, no animal life is possible in its waters. The specific gravity is one-sixth greater than that of pure water, which enables it to float the human body lightly on its surface. The character of the salts held in solution is also such as to render the waters remarkably curative and invigorating to the bather; and thus the lake has become the resort of many people who seek its shores either for health or pleasure.

Eastern Utah.—The eastern half of the territory, which in its general physical character belongs to the Colorado river system, has several noble streams. The most important are the Green and the Grand rivers, which unite in the eastern part of the territory to form the main stream of the Colorado; and the San Juan, which has a course of 150 miles in the extreme south-eastern part of the territory. The Virgin River, also belonging to the Colorado system, drains the south-western corner of the territory.

All the streams of the Colorado system have worn deep valleys or cañons in the soft limestone in many parts of their courses. The cañons of the Colorado River proper constitute the most magnificent natural feature of their kind in the world. The mysteries of these cañons were first penetrated by Professor J. W. Powell of the United States Geological Survey, in 1869. He entered Green River with his adventurous party at a point in Wyoming Territory near the Utah line, and, after nearly three months of exploration, came out at the foot of the Grand Cañon of the Colorado, in Western Arizona.

Scenery.—The surface and drainage features of Utah contribute to make its scenery grand and picturesque. The territory abounds in splendid mountain views, beautiful lakes, vast chasms worn by the water or rent asunder by earthquakes, extensive lava-fields, extinct volcanoes, and huge rocks standing like monuments of a race of giants.

IV. CLIMATE.

The climate of Utah has the general characteristics of the Great Basin. The air is exceedingly dry, owing to the light rainfall. On the plains the days in summer are intensely hot, but the nights are cool and refreshing. In the valleys, at the foot of the mountains, the summers are delightful, and the winters mild and enjoyable. The upper valleys, between the lateral ranges, are cool and pleasant in summer and have heavy snows in winter.

V. RESOURCES.

The resources of Utah are found mainly in its great mountain range, the Wahsatch. Here are the rich stores of mineral wealth that have yielded to the skill and industry of the miner, and here is stored the far richer treasure of the snow, which alone has made agriculture a possibility, and thus has rendered the territory habitable by man.

Soil.—The greater part of Utah is a desert by nature. The soil of the valleys, having largely been produced by wearing away of the mountain rocks, meets all the requirements of agriculture except the element of moisture, and therefore, when irrigated, yields bountiful returns to the farmer. Even the dry soils of the alkali plains and deserts readily submit to the influence of moisture, and, when washed free of their mineral impurities, are among the most productive in the territory.

But as the amount of water available for purposes of irrigation is limited, the greater part of the cultivated lands of Utah lie at the western base of the Wahsatch Mountains, and along the streams that take their rise high up the sides of that range.

The north-eastern part of the territory, having a more regular rainfall, is adapted to grazing, its plains being covered with rich nutritious grasses. The greater part of Utah is treeless. The mountain forests consist chiefly of pine. The cottonwood grows along the banks of the streams.

Minerals.—Utah is rich in deposits of silver, iron, copper, lead, and coal; but the leading product of the mines is silver. The mineral wealth of the territory is as yet largely undeveloped, and it is probable that in the end the richest mineral treasures will be found to be among the baser metals rather than in gold and silver. The richest mining districts are in the Wahsatch Range.

Iron County possesses immense stores of the choicest iron ores. The granites, marbles, limestones, and slates are also of the best quality, and are found in abundance in several counties.

The mountain streams, in addition to their service in irrigation, afford excellent and abundant water-power for running various mills, chiefly for the manufacture of flour, woolen goods, etc.

VI. INDUSTRIES.

Agriculture and mining are the chief industries of the people of the territory; but considerable numbers are also engaged in manufactures, herding, and the various branches of commerce.

Agriculture.—The leading farm products are wheat, barley, oats, vegetables, and fruit. In Southern Utah the irrigated valleys produce cotton, tobacco, rice, and grapes in abundance.

According to the census of 1880, there were in the territory 9,452 farms, containing 655,524 acres, nearly two-thirds of which were improved. These farms were valued at over \$14,000,000, or over \$20 per acre. It is notable that the average size of these farms is only 69 acres, which is below the average in any other state or territory.

This feature is a peculiarity of Utah farming, by which a few acres are carefully watered and tended like a garden, thus yielding the richest return to the thrifty husbandman.

Market-gardening for the supply of the many mining camps and larger towns in the territory is also a profitable pursuit.

The hardy fruits and vegetables of the temperate zone are grown in the northern districts, while the sub-tropical region around the head waters of the Virgin River yields grapes, oranges, apricots, and other fruits.

Mining.—In 1881 the total product of the mines of the territory was estimated to exceed \$7,000,000. Of this, by far the greater part was silver. Gold is mined independently to some extent, and also in connection with silver. Lead is an incidental product of silver-mining. Coal is chiefly mined for manufacturing and railroad uses. Copper is found in rich deposits, and its product promises to be very large.

Excellent building-stone is found in many localities, and good quarries are already opened up, adequate for local needs.

Stock-raising is a growing industry in both Eastern and Western Utah.

In 1880 the value of live-stock in the territory was over \$3,300,000, but since that time it has much more than doubled in value.

In Eastern Utah stock-raising on an extensive scale is only just begun, but that region is capable of maintaining large herds of cattle.

The wool product of 1880 was nearly 1,000,000 pounds, and in 1883 about twice that quantity.

The manufactures of Utah consist chiefly of flour, woolen goods, and machinery, together with the varied products required by a thrifty industrial population.

It is a peculiarity of the territory that there is hardly an essential of comfortable and intelligent living which its people do not produce or manufacture within their own borders.

Commerce.—The exports of the territory largely exceed the imports, and wealth and capital are constantly increasing, in return for the product of her soils, mines, and herds.

There are no navigable rivers in Utah, but the railroad shipping facilities are of unusual excellence. It is connected with Nevada and California by the Central Pacific Railroad, and with the Mississippi valley by the Union Pacific. It also has an important connection with the Colorado system of railroads by a line coming into the territory through the Grand River valley, and extending through Emery and Utah counties to Salt Lake City.

There are also numerous local railroads extending into the agricultural and mining districts.

The Utah and Northern Railroad gives the territory connection with the Northern Pacific Railroad.

VII. GOVERNMENT.

Utah has a territorial government under laws enacted by the Congress of the United States or by the territorial Legislature.

The chief executive officers are the governor and secretary, appointed by the President of the United States with the consent of the Senate.

The legislative department consists of two houses,—the Council, consisting of twelve members; and the House of Representatives, of twenty-four members. They are elected by the people for terms of two years, and meet biennially on the first Monday in January of odd years.

The judiciary of the territory consists of a Supreme Court (a chief justice and two associates), district courts held in various parts of the territory by the justices of the Supreme Court, courts of probate, and justices' courts.

VIII. EDUCATION.

Utah has a territorial system of public schools, and there is no general school fund for the support of public education.

The schools are supported by local taxation levied by each district, and by a territorial tax of three-tenths of one per cent distributed to the several districts on the basis of school population.

The general supervision of the school system is intrusted to a territorial superintendent of schools, assisted by a county superintendent and a county board of school examiners in each county.

The territorial university, called the University of Deseret, is located at Salt Lake City. It is liberally supported from the public funds, and maintains a Normal department of high grade.

Several of the larger towns maintain graded schools: and among the leading private institutions are Salt Lake Academy, Rocky Mountain Seminary, and St. Mark's School, at Salt Lake City; Brigham Young College, at Logan; and Brigham Young Academy, at Provo.

IX. HISTORY.

The soil of Utah was part of the extensive territory acquired by the United States from Mexico by the treaty of 1848.

When California was organized as a state by Act of Congress, in 1850, the newly acquired region to the east, lying north of the 37th parallel, was organized as Utah Territory.

Utah then included, in addition to its present limits, parts of Nevada, Wyoming, and Colorado. It has occupied its present area since the organization of Wyoming Territory, in 1868.

The first settlement made within the territory was at Salt Lake City, in 1847. On the twenty-fourth day of June of that year, Brigham Young, with about one hundred and fifty Mormon followers, reached the site of the present city, and decided to found there a place of refuge for the followers of his faith. They had successively attempted settlements in Ohio, Missouri, and Illinois, but wherever they had settled they were subjected to severe persecution.

The successful migration to Utah, and the subsequent growth and prosperity of the territory, were largely due to the skill and leadership of Brigham Young, who was the head of the Mormon Church from 1844 to 1877.

In 1880 the assessed valuation of real and personal property was nearly twenty-five millions of dollars, which was greater

than that of any other territory. The amount of taxation devoted to education and public improvements was also greater than that in any other territory in the Union.

X. POLITICAL DIVISIONS.

Utah contains twenty-four counties, twenty of which are organized. Among the more important cities and towns are the following:—

Salt Lake City (20,768), the capital and largest city of the territory, is situated in the northern part of Utah, 12 miles from the southern shore of Great Salt Lake, and under the shadow of the Wahsatch Mountains.

The city is finely laid out with broad streets handsomely shaded. The yards and gardens in the residence part of the town are spacious and elegantly maintained, being irrigated by streams of water running on either side of the public streets.

The city is the chief center and seat of government of the Mormon Church, which has a large membership throughout Utah and the adjacent territories. Among its most prominent features are the temple (not yet completed), the tabernacle, and a number of fine private buildings.

Salt Lake City is the metropolis of trade for the territory, and the center of an excellent system of railways. The traffic of the Union and Central Pacific and the Utah and Northern roads comes into the city over the Utah Central from Ogden, and there is an important system of territorial roads connecting the city with nearly every fertile valley and mining camp in the territory.

Ogden (6,096), near Great Salt Lake, is the county seat of Weber County, and the second largest town in the territory. It is the point of junction of the Union and Central Pacific railroads, running east and west, and also of the Utah and Northern and the Utah Central, running north and south.

The city is the center of a fine trade, and is handsomely and substantially built. It has schools of a superior character, and large and growing manufacturing interests.

Logan—the county seat of Cache County, is the trade center of the extreme north-eastern part of the territory. It has considerable manufactures and excellent water-power. It is in the center of a fine wheat, stock, and dairy region.

It has excellent public and private schools, and is the seat of Brigham Young College.

Provo—county seat of Utah County, is situated near the foot of Provo valley, about 48 miles from Salt Lake City. It has excellent water-power, which is used mainly in the manufacture of woolen goods. It is the seat of the Utah Insane Asylum and of Brigham Young Academy.

Springville—in Utah County, is the terminus of a narrow-gauge railroad running to the Pleasant valley coal-mines. It has a large mercantile and shipping business, and is a rapidly growing place.

Manti—county seat of San Pete County, is the trade center of the San Pete valley, a rich farming, grazing, and dairy region.

Mount Pleasant and **Ephraim City** are also important business towns in the San Pete valley.

Brigham City—county seat of Box Elder County, near the northern shores of Great Salt Lake, is an important trading town in the northern part of the territory. It has considerable manufactures of woolen goods and leather.

St. George—county seat of Washington County, is the chief trading center in the fertile valley of the Virgin River. It is the largest town in the territory outside the borders of the Great Basin. **Silver Reef** is the leading mining town in this region.

Park City and **Colville**—in Summit County, are situated on a branch of the Union Pacific Railroad, and are engaged chiefly in the mining of coal for railroad and manufacturing purposes.

Corinne—on Bear River, is an important shipping and trading point on the line of the Central Pacific Railroad.

Beaver City—county seat of Beaver County, is the chief town and business center in the rich valley of the same name. The county is mainly devoted to farming and stock-raising. In the amount of wool product it ranks *third* in the territory.

The following towns, each having between 1,000 and 2,500 inhabitants in 1880, are worthy of mention:—

Hyrum, **Richmond**, **Smithfield**, and **Wellsville**—thriving towns in Cache County;

Kaysville—a shipping point and trading center in Davis County;

Nephi—county seat of Juab County, and the chief town in the fertile Juab valley;

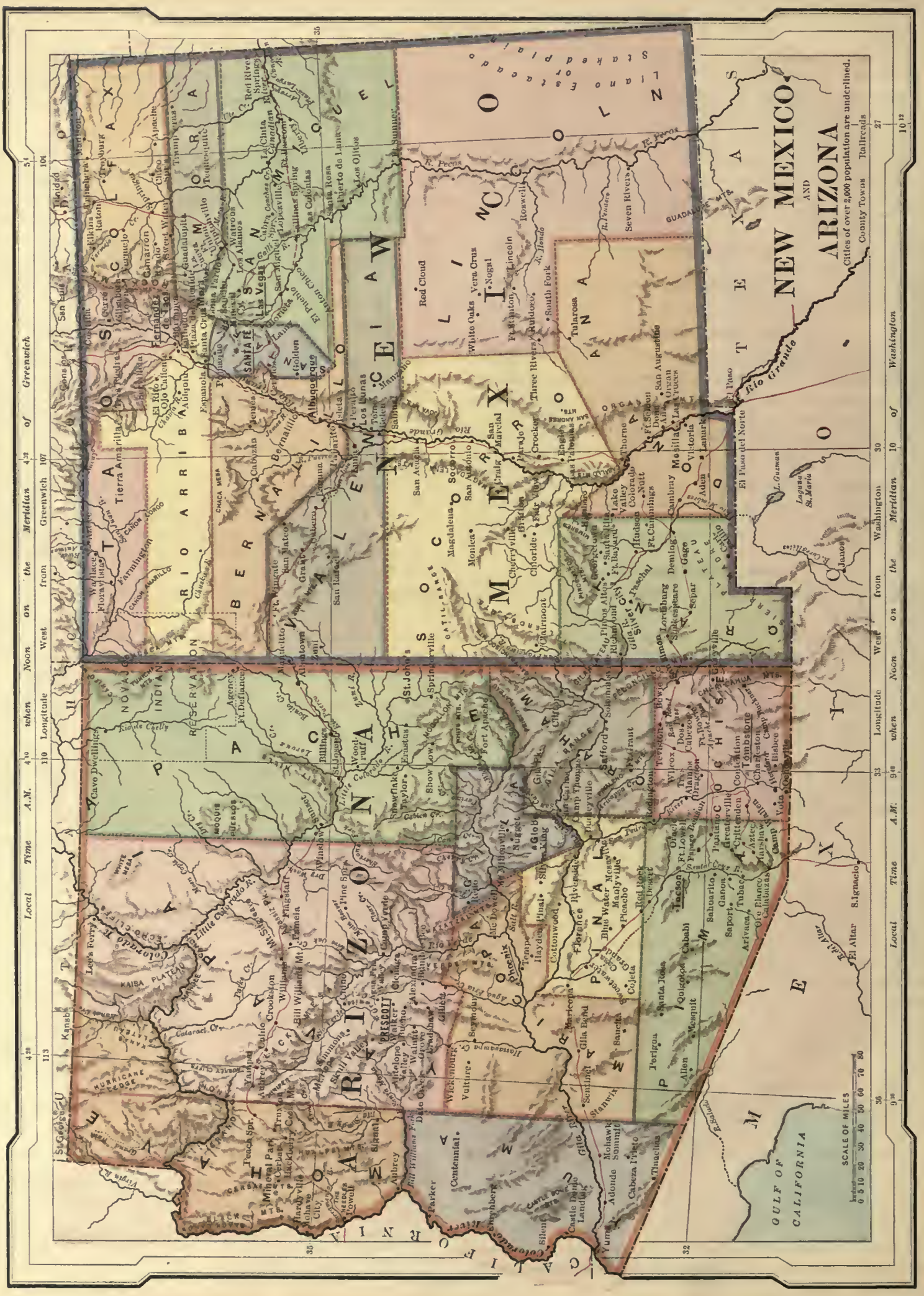
Fairview—in San Pete County, commanding a wonderful view of the lofty Mount Nebo;

Richfield—county seat of Sevier County, and trading center of the Upper Sevier valley;

Grantville and **Tooele**—in Tooele County, the latter the county seat;

American Fork, **Lehi**, **Pleasant Grove**, and **Spanish Fork**—thriving railroad towns in Utah County, on the shores of Utah Lake; and

Heber City—county seat of Wahsatch County, and chief commercial point in the Upper Provo valley.



NEW MEXICO.

QUESTIONS ON THE MAP.

Situation.—What is the shape of New Mexico? According to the scale of miles, what is the length of one side of it? What state on the north? What state forms most of the eastern boundary and a part of the southern? What country on the south? What division bounds it on the west? What parallel crosses it near the middle? What degree of longitude would divide this territory into two equal parts?

Surface—What portions are most mountainous? What general mountain range crosses it, and in what direction? What minor ranges are there? Where are the more level portions? The Staked Plain? What is the general slope of the land as shown by the flowing waters?

Rivers.—What two principal rivers cross New Mexico? Describe their course. Which is the larger? What other rivers have head waters here? What parts appear to be well watered? What portions lack streams?

Counties and Cities.—How many counties in New Mexico? Through what counties does the Rio Grande flow? What important places on this river? Name the capital, and describe its location. From the map, what counties appear to be most thickly settled? In what natural regions are most of the cities and towns?



ON THE UPPER RIO GRANDE.



ANCIENT INDIAN PUEBLO.

them are found the Oscura, Organ, San Andres, Sacramento, and Guadalupe ranges. West of the Rio Grande River, the Zuni, Datil, Tularosa, Mimbres, and Pinos Altos ranges are the most important. The eastern portion of the territory, together with much that lies up between the mountain ranges, consists of extensive plateaus, where excellent native grasses abound, and where the principal pastoral interests of the territory flourish.

III. DRAINAGE.

New Mexico sends her waters to either ocean.

The Rio Grande, which has its source in the mountains of Colorado, flows south through the territory draining its central portion, and passing out as the boundary between Texas and Mexico. It receives into its channel a great many small streams, the largest of which are the Rio Chama and Rio Puerco. Numerous small streams which drain the north-eastern part of the territory form the Canadian, and find their way through Texas, the Indian Territory, and Arkansas, into the Mississippi River as the Arkansas.

The south-eastern portion of the territory is drained by the Rio Pecos, which receives innumerable small tributaries, and joins the Rio Grande after flowing through the western part of Texas.

The waters of the western part of the territory are tributary to the Pacific Ocean through the Colorado River, which they reach by way of the head waters of the San Juan from the extreme north-western corner, the Little Colorado from the central portions, and the Gila from the south-western corner, and through some other unimportant streams.

IV. CLIMATE.

The climate of New Mexico is remarkable for its uniformity. The summers are moderate, and extremely hot weather is of rare occurrence, while the winters are neither long nor severe.

The atmosphere is pure and dry. This serves to moderate the extremes of cold in the higher localities, and of the heat in the plains and valleys. The rainy season, which usually lasts during July and August, is not a continuous rain, but is rather a season of frequent showers, which usually continue for a few hours, with periods of sun-

DESCRIPTION.

[Area, 122,580 square miles. Population (1880), 119,565.]

I. SITUATION AND EXTENT.

The Territory of New Mexico is situated in the south-western portion of the United States, its western portion being traversed by the Rocky Mountains, while its eastern extends through a series of plateaus and tablelands into the great grazing regions which occupy so much of the western slope of the Mississippi valley.

It is bounded by Colorado on the north, in latitude 37° north; by the Indian Territory and Texas on the east; and by Arizona on the west, lying between the 103d and 109th degrees of longitude west from Greenwich; and on the south by Texas and Mexico in an irregular line.

New Mexico is about 370 miles long from east to west, while from north to south it is about 335 miles. It ranks fifth in size, and forty-first in population, among all the states and territories.

II. SURFACE.

The surface presents all the variety of mountain, plateau, and valley, the larger portion being a mountainous plateau.

The Santa Fé, Las Vegas, and Taos ranges, forming a part of the main axis of the Rocky Mountains, occupy a central position in the north end of the territory west of the Rio Grande River, while south of

shine. The atmosphere is heavily charged with electricity, and telegraph and other electric wires are often affected. Owing to atmospheric influences, objects at a distance appear much nearer than they really are. All the climatic influences tend to health and comfort.

V. RESOURCES.

The material natural resources of New Mexico are of great importance, though as yet they have not been so far developed as to make their value known to the commercial world.

Soil.—The soil in the valleys is a rich and sandy loam, capable of producing excellent crops; and, while the greater part of the territory is by no means an agricultural country, there are millions of acres which, with irrigation, can be made rich and productive.

Minerals.—Important discoveries of the precious minerals have been made, and enough has been developed to show that the territory is rich in gold and silver. The most important mines have been opened in the south-western portion of the territory in the vicinity of Deming, Silver City, and Lordsburg; and gold and silver are found in all the usual formations peculiar to the Rocky Mountains. Important mines are also worked in the central part of the territory in the regions around Socorro, and also in the north-west in the San Juan region.

Several varieties of iron ores are found in different parts of the territory.

Important mines of copper have been discovered, and are already worked to advantage in many parts, notably in the vicinity of Santa Rita in the south-west, and Glorieta in the north-central portions of the territory.

An excellent article of coal is found in many parts of the territory in abundance. Important mines are worked in the northern part near Raton, in the vicinity of Socorro in the central part, and in the extreme western border near Gallup and Defiance.

Among other geological products of the territory may be mentioned lead, salt, soda, sulphur, plumbago, mica, gypsum, cement, granite, and building-stone in great variety.

Forests.—The eastern portion of the territory is mostly free from timber; but the western part, including the north-central, has a good supply for home requirements.

Scenery.—The natural scenery throughout the territory is very fine, presenting every variety of wildness and beauty.

VI. INDUSTRIES.

At the present time New Mexico is pre-eminently a stock-raising region, but the mining and commercial interests are being rapidly developed.

Stock-raising.—The range is ample and generally well watered, and affords feed for cattle, with a little shifting, the year round. Vast herds roam at will, with a few watchers; while in many localities the ranges are inclosed, and cattle are kept well in hand, and an effort is made to improve the stock as well as to get them ready for the market. There are localities where the range is sufficient, but where the water is scarce; but efforts are being made to provide for this deficiency by irrigation and by artesian wells.

Sheep-raising is an important interest; and this territory has more sheep in its ranges than any other state or territory in the Union, and yields the greatest product of wool. While this business is considered a little less certain in its results, it is more profitable than cattle-raising, on account of the quicker returns from an investment.

Mining.—The mining interests of the territory embrace gold and silver mines, yielding large quantities of ore, and affording employment to thousands of men. Coal-mining is also an important industry, and the labor and capital employed are very great; while the copper, iron, and other mines all tend to enhance the mining value of the territory, which is fast assuming importance among the mining regions of the west.

Farming.—In the rich valleys there are many farms where good attention secures excellent returns. Corn, wheat, and garden products are the principal crops.

Manufactures.—The most important manufacturing interests of the territory are those connected with mining business in the way of smelters, etc., for the treatment of the ores of gold, silver, and copper, and with the railroad interests through machine-shops, etc.; though there are other manufacturing interests of no mean importance, among which may be named the production of jewelry of a peculiar style, noted for its richness and beauty.

Commerce.—The commerce of the territory consists in the marketing of its cattle and wool products, and the results of its mining interests, on the one hand, and of the purchase of the goods, wares, and merchandise demanded by her people, on the other.

The railroad facilities of the territory embrace connections with the Pacific Ocean through California and Mexico, over four different routes, and with the Atlantic and the great stock-consuming regions of the north and east by as many more. As has been the case in many other localities, the railroads have led the way to the development of the country, and much of the thrift and prosperity of this region is due to them.

Lumbering.—The lumber interests have attracted capital from the older lumbering regions of the north; and large mills are in operation in several localities, notably in the plateaus and foot-hills of the San Francisco Mountains, and in some ranges of the continental divide.

VII. GOVERNMENT.

The territory of New Mexico, like all the other territories, is largely governed under the provisions of the United States statutes.

The governor and other territorial officers are appointed by the President of the United States, and confirmed by the Senate, and are paid out of the United States treasury.

The local legislative authority is vested in a territorial Assembly, composed of two branches,—a House of Representatives and a Legislative Council,—the members of which are elected by the people for two years. Sessions are held biennially in the even years.

The judiciary is vested in a Supreme Court with three judges, district courts, circuit courts, and other courts of inferior jurisdiction. These officers are charged with the administration of justice under the laws of the United States and of the territory.

VIII. EDUCATION.

The educational system of New Mexico is not yet fully developed; and, as in all territories, there is no public school fund. There is a territorial organization, but the more important functions of the educational work devolve upon "county boards of commissioners."

These commissioners are elected by the people, and have general charge of the public school interests of their respective counties, under the laws of the territory. In most cases, schools are provided in every district where the school population is large enough to warrant it. In the cities and towns there are very fair accommodations, and in several instances, superior facilities are afforded.

In addition to the public schools, there are numerous private and denominational schools, which are generally well supported and patronized.

IX. HISTORY.

The history of New Mexico is the history of three civilizations, and no portion of our country is so rich in traditional lore as this. While it is among the newest in settlement and material advancement, under our present civilization, it is the oldest, in point of what has been, of all the regions of our great republic.

Three hundred years ago the Spaniards made settlements in New Mexico, planting their banners upon the ruins of a civilization which had flourished and decayed before them. The Zunis, from whom they wrested the territory, had peopled a region which yields to us some of

the richest fields for antiquarian research on our continent, and which, for interesting study, is not surpassed by the classic regions of the Nile.

The principal part of this territory came under control of the United States through the "Treaty of Guadalupe Hidalgo," Feb. 2, 1848, as the result of the war with Mexico, and by cession from the state of Texas in 1850. The Gadsden Purchase, in 1853, completed the transfer of a portion of the south-western corner of the territory.

New Mexico was organized as a territory Sept. 9, 1850, when it included much of the territory now embraced in Colorado, Arizona, and California. The territory has occupied its present limits since 1863. For twenty-five years the agricultural and stock-raising interests grew steadily but slowly; and the most important hold the United States had upon the country was through the treaty with the Mexican Government, and the presence of a few soldiers. With the development of its vast mining interests, and the extension of railroad lines in all directions through its limits, the territory has taken on a new life, and is rapidly becoming an enterprising and populous modern community.

X. POLITICAL DIVISIONS.

New Mexico contains fourteen counties and the following principal cities and towns:—

Santa Fé (7,000), the capital city and metropolis of New Mexico, is situated a little north of the center of the territory. Since its occupation by the Spaniards in 1583, until within a few years, it has been important only as the seat of government and as a military, outfitting, and trading post.

The streets are generally narrow, and the older houses are built of adobe, or sun-dried bricks, among the most interesting of which is the Palace, said to have been built in 1581, and which has served as the home of the local ruler ever since. The church of San Miguel, built in 1640, and now probably the oldest church in the United States, is still in use.

With the advent of the railroad and the public school, Santa Fé has begun to show signs of a new life; and churches and other public buildings, as well as business houses, have sprung into existence, and the legends of the past are being obliterated by the unmistakable signs of progress. Surrounded by a mining region of untold wealth, and a large area of farming land, which, with irrigation and work, yields great and increasing crops, Santa Fé has at her doors every thing necessary to make her a great city. Water-works, gas-works, and a fire department are already in existence, and the city is the center of considerable manufactures and an extensive trade.

Albuquerque (8,000) is beautifully situated in Bernalillo County, in the central part of the territory, and is surrounded by a fine farming and stock-raising country. The old portion of this city dates back to the early Spanish settlements, and is principally built of adobe. The new town was laid out in 1880, and is a marvel of growth and prosperity.

It has important railroad facilities, which have done much in the way of developing the resources of the town and the surrounding country. It is supplied with gas and water works, newspapers, churches, schools, banks, hotels, and a fine opera-house. Extensive railway-shops are located here; and, in addition to the business which these shops control, it has a prosperous trade with the surrounding agricultural community. It is an important shipping-point, and has ample facilities for the transaction of a large and rapidly growing business.

Anton Chico, situated on the head waters of the Rio Pecos, is the center of a fine farming and grazing community.

Bernalillo is the county seat of Bernalillo County, and is situated on the Rio Grande, south-west of Santa Fé, in the center of a splendid agricultural

community. It is an old Mexican town, and has for many years been one of the prominent towns in this region of the country, owing to the wealth and influence of her people. It is surrounded by a fine fruit-growing district; and peaches, apples, apricots, and grapes of excellent quality are produced in abundance. It is important as an outfitting point for adjacent mining regions.

Cimmaron, formerly the county seat of Colfax County, is a beautiful village in the interior, twenty-two miles from the railroad.

Deming is situated in the south-western part of the territory, at the terminus of Atchison, Topeka, and Santa Fé Railroad, and at its junction with the Southern Pacific. It is surrounded by a fine stock-raising country, and is the center of one of the most promising mining districts in the territory. It has a good trade across the border with Mexico, as well as with the neighboring mining camps. A United States custom-house is located here.

Fernandez de Taos is located in the valley of the Rio Grande, near the northern end of the territory, and is one of the ancient settlements of the territory, surrounded with much that is of interest to the antiquarian and the historian. It is the county seat of Taos County, and a wealthy and prosperous town. It was the home of the famous frontiersman, Kit Carson, whose grave may be found in the adjacent cemetery.

Las Cruces is one of the chief towns in the southern part of the territory. It is situated on the east bank of the Rio Grande, and is noted for the extensive and beautiful orchards and vineyards by which it is surrounded, as well as for the value of the mining interests which are tributary to it. It has also a flourishing business with the adjacent country.

Las Lunas is the county seat of Valencia County, in the central part of the territory. It is one of the old Mexican towns, and is surrounded by a fine stock-raising region, rich in flocks and herds.

Las Vegas, owing to its railway machine-shops, etc., is an important station on the great southern route. The town is well built up, has water-works, gas-works, street-railway, newspapers, banks, hotels, churches, and schools. There are many important mining regions in the adjacent mountains, while the valleys produce excellent crops of grain and vegetables. The famous Las Vegas Hot Springs are a few miles distant. The old town of Las Vegas is one of the oldest in the territory, and was an important point on the old "Santa Fé Trail."

Lordsburg is a thriving mining town in the south-western corner of the territory. The most productive mines in the vicinity are those of Shakespeare and Pyramid City.

Mesilla, the county seat of Doña Ana County, is situated on the opposite bank of the Rio Grande, and a few miles below Las Cruces, and, like its neighbor, is noted for its orchards and vineyards.

Raton is an important town in the northern end of the territory. It has excellent water-works, hotels, banks, churches, and schools. It is surrounded by a fine grazing region, and has a large trade in the supplies required by the stockmen. Important gold-mines are located in the vicinity, while silver, copper, lead, iron, and plumbago are also found. Coal-mining is the leading business interest. Railway-shops also employ a large number of people.

Rincon is the junction of two important railroads, and is a prosperous town surrounded by Mexican settlements, engaged in agriculture and stock-raising.

Silver City, the county seat of Grant County, is an important town. The business is largely with the adjacent mines. It is well built, having several banks, numerous large wholesale stores, besides stamp-mills, planing-mills, hotels, churches, and public schools.

Socorro, the county seat of Socorro County, is an important mining center, many of the best mines in the territory lying in the immediate vicinity. It is beautifully situated in the valley of the Rio Grande, and has large and prosperous outfitting stores, fine churches, and good schools. Extensive stamp-mills and smelting-works are established here.

Springer, the county seat of Colfax County, is a prosperous town in the northern part of the state. It is surrounded by a rich stock region, and has a good trade, supplying a large section of country.

ARIZONA.



CLIFF VILLAGE.

QUESTIONS ON THE MAP.

Situation.—What division forms the northern boundary of Arizona? What the eastern? What country bounds it on the south? What states on the west? What important river bounds it on the west? What is its general shape? What parallel marked on the map crosses the southern part? According to the scale of miles, what is the distance across

it from north to south? From east to west?

Surface.—What is the general character of its surface? Name some of the mountains in the south-east. In the central region. Is the average elevation of Arizona high, or low? What celebrated cañon is partly in this section?

Rivers.—What river system drains this region? What are the two principal branches here? Give the location and describe the course of the larger one. The smaller one. Are there many small streams?

Counties and Cities.—What counties in the northern part? How many and what counties in the southern half? Which county is the largest in extent? The smallest? Name and locate the capital. Judging from the map, do most of the people live among the mountains, or on the plains?

DESCRIPTION.

[Area, 113,020 square miles. Population, 41,580.]

I. SITUATION AND EXTENT.

Situation.—Arizona lies between Mexico on the south and Utah on the north. It is included between the parallels of $31^{\circ} 37'$ and 37° north latitude, and between the meridians of $109^{\circ} 3'$ and $114^{\circ} 25'$ west longitude.

Extent.—In shape it is nearly a square,—370 miles long north and south, and 350 miles wide east and west. In area it is about two-thirds as large as California.

II. SURFACE.

Arizona is a succession of tablelands and *mesas*, rising in successive platforms from a few hundred feet in the south-west, along the Colorado, to an altitude of 7,000 feet in the north.

These great plateaus are everywhere crossed by a network of mountain ridges, more than fifty in number, with numerous intervening valleys.

The highest summit is Humphrey's Peak (12,561 feet), in the San Francisco Mountains, near the central part of the

territory. The largest valley is that of the Gila River, and the most stupendous cañon that of the Colorado.

III. DRAINAGE.

Almost the entire area of Arizona is drained by the Colorado River and its tributaries. This great river is one of the longest west of the Rocky Mountains, in which it takes its rise by two branches called the Grand and Green rivers. These rivers unite in Utah, and thence the Colorado flows by a generally south-west course into the Gulf of California. Including Green River, the larger of these head streams, it is about 1,800 miles in length. Its waters assume a reddish color from the falling of the rains upon a soil of red clay: hence the name *Colorado* or *Colored River*.

The Colorado has worn through the soft strata of sandstone a narrow cañon to the depth of from 2,000 to 5,000 feet. This dark and gloomy river gorge, 400 miles long, with its stupendous walls, is noted for its grand and desolate scenery.

The Gila River, the largest tributary of the Colorado, 500 miles long, drains the southern section of the territory. It is a shallow stream during the dry season, but in the season of rains discharges a great volume of muddy and yellow water.

A few insignificant streams on the extreme southern border of the territory flow through Mexico into the Gulf of California. With this exception, the Colorado receives the entire drainage of Arizona.

IV. CLIMATE.

Arizona has a dry climate. The south-western part of the territory is the driest and hottest region in the United States. In the low and sandy valley of the Colorado, in the vicinity of Yuma, the summer heat is intense, the thermometer frequently rising to 115° in the shade.

The average annual rainfall in this section rarely reaches three inches.

The elevated *mesas* and the mountain regions of central and eastern Arizona have cooler summers, more abundant rains, and colder winters.

The rains fall chiefly in the months of July, August, and September.

V. RESOURCES AND INDUSTRIES.

Minerals. — Arizona is rich in mines of silver, gold, copper, coal, and salt. Mining is the chief industrial pursuit. The development of the mineral resources is recent; but in 1882 the total product of the mines of Arizona was estimated at \$12,000,000.

Agriculture. — The greater part of Arizona is too dry for tillage. The valley lands, when irrigated by water from the rivers, produce grain, Indian-corn, beans, vegetables, and fruits, — such as apples, pears, peaches, plums, oranges, lemons, and figs.

The cultivated lands mostly lie along the Gila River, and in the small mountain valleys of the central and eastern parts of the territory.

The mountain slopes and valleys afford good natural pasturage, and stock-raising is an important pursuit.

Forests and Vegetation. — In the central and eastern parts of Arizona there are extensive forests of coniferous trees, such as pines, cedars, and junipers; but, as a whole, Arizona is sparsely wooded.

On the arid *mesas*, or level tablelands, the characteristic vegetation is the sage-brush, cactus, prickly-pear, and the maguey or century plant.

Among the peculiar trees is the *mesquite*, which bears a bean-like seed, largely used by the Indians for food.

In the elevated valleys of the mountains the potato is indigenous.

Commerce. — The trade of Arizona consists chiefly in the export of bullion and ores, and the import of bread-stuffs and manufactured articles.

The Southern Pacific Railroad crosses the southern part of the territory, connecting it with California and the Gulf of Mexico and the Mississippi valley. This line of road, and the Atlantic and Pacific, which crosses the territory east and west near its central part, give to Arizona excellent facilities for exchanging the products of her mines, and the increase of her fields and herds, for the manufactures of the east. The recent progress of the territory is largely due to these advantages for ready and direct transportation. The Colorado River is navigable for small steamers as far as the mouth of the Grand Cañon.

Manufactures. — The manufactures are limited chiefly to lumber and flour.

VI. GOVERNMENT.

Arizona has a territorial government, organized by Act of Congress in 1863.

The chief executive officers are the governor and the secretary, who are appointed by the President of the United States, with the consent of the Senate.

The Legislature is elected by the people at the biennial territorial election, and meets once in two years in regular session, on the 1st of January of odd years. The session is limited to sixty days; and both senators and representatives are elected for terms of two years.

The judicial power is vested in a Supreme Court, the judges of which are appointed by the President and Senate of the United States for a term of four years.

VII. EDUCATION.

The territory has an organized system of public schools, which are under the general supervision of a Superintendent of Public Instruction, elected by the people.

The schools of Tucson, Prescott, and other mining towns, are in good condition and liberally sustained.

VIII. HISTORY.

Down to the close of the Mexican war all of Arizona belonged to Mexico. By the treaty of 1848 the part north of the Gila became the property of the United States; and in 1853 the balance of the territory was acquired by means of the Gadsden Purchase.

According to the treaty of 1848, the boundary between Mexico and the United States was to be the Rio Grande, from its mouth to New Mexico; thence to the river Gila; that river to its junction with the Colorado; then in a straight line to the Pacific, at a point ten miles south of San Diego. Soon afterwards the United States acquired by the Gadsden Purchase a considerable strip of the territory of Northern Mexico, including a good part of Arizona.

Until 1863 the territory formed a part of Utah. In that year it was separately organized by Act of Congress; but its progress was very much retarded by the hostile Apaches and other savage Indian tribes. With the extension of railroads into and through the territory, and the development of its rich mines of gold and silver, these hostile bands have gradually been driven out or restrained, and this territory has entered upon an era of rapid and substantial development in industry, wealth, and population.

IX. POLITICAL DIVISIONS.

Arizona is divided into nine counties, and contains the following cities and towns:—

Prescott is the capital of the territory, and county seat of Yavapai County. It is situated in a beautiful mountain valley, and enjoys a delightful climate. The place is the center of a considerable trade in lumber, cattle, etc. Its elevation is over 5,500 feet.

Yuma, in Yuma County, on the Colorado River, lies near the boundary line of Mexico, and directly opposite Fort Yuma in California. It is an important trading town, on the line of the Southern Pacific Railroad, and is fast growing in population and importance. It is also the *entrepot* of a large river trade on the lower Colorado.

Tucson, in Pima County, 250 miles from Yuma, on the line of the Southern Pacific Railroad, is near several rich silver districts, and is an important center of business and travel. It is the commercial center of the rich Santa Cruz region, and has a large business in cattle, bullion, and farm products.

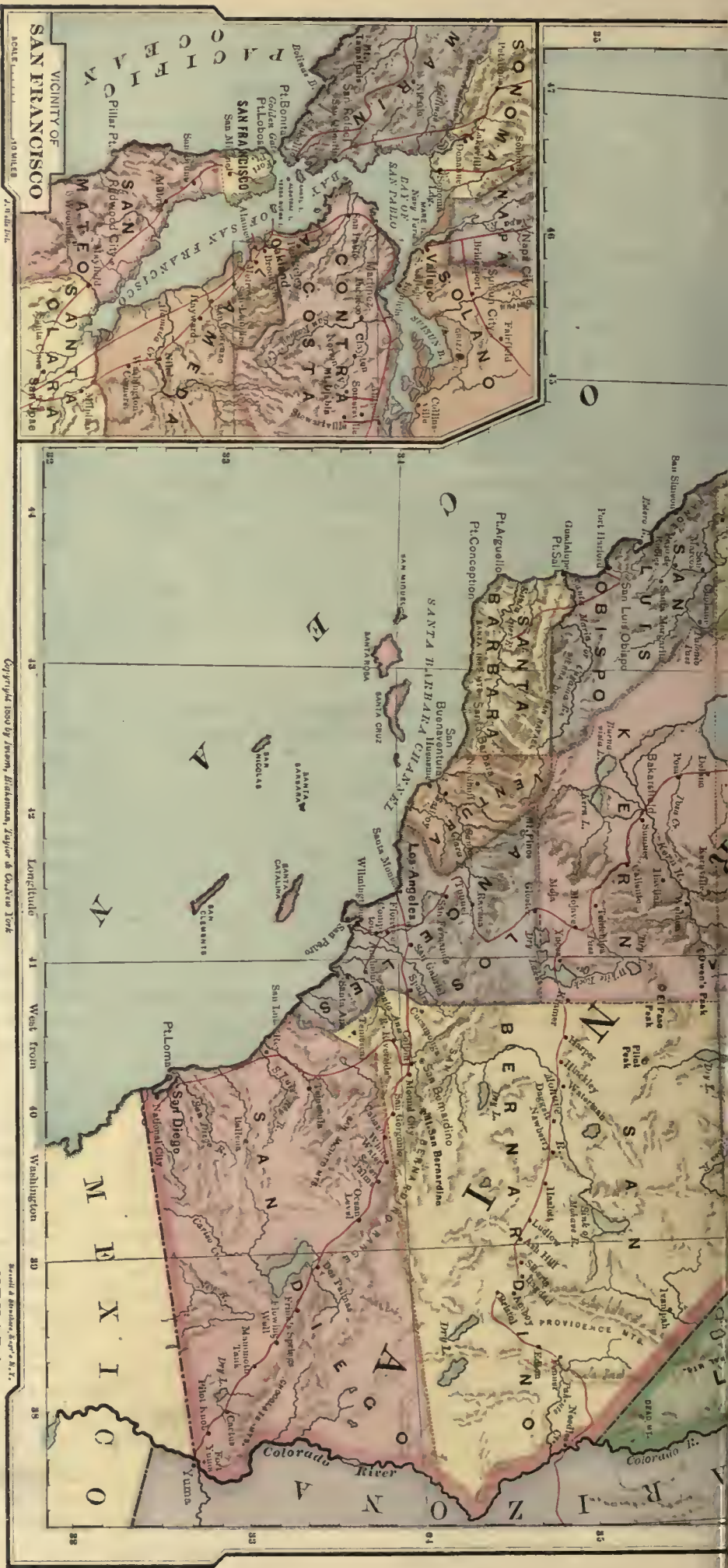
Tombstone, in Cochise County, is the center of a rich grazing and mining district. It has had a very rapid growth, and now ranks as one of the largest cities in the territory.

Phoenix, in Maricopa County, is the center of trade and supplies for a number of prosperous mining districts, and is rapidly growing in importance.

Florence is an important town in Pinal County, on the Gila River. It is surrounded by a fertile farming region, and has a large trade in supplying the mining districts in the vicinity and in reducing and shipping their product.

Globe City, in Gila County, is the center of trade for an extensive mining district on the eastern slope of the Pinal Mountains.

The following enterprising places are also worthy of mention: **Tubac**, in Pima County; **Ehrenberg** and **Castle Dome City**, in Yuma County; **Wickenburg**, in Maricopa County; **Safford**, in Graham County; and **Aubrey City** and **Hardyville**, in Mohave County. All these towns are places of considerable trade in connection with the mining and shipping interests of the territory.



QUESTIONS ON THE MAP.

CALIFORNIA.

Situation.—What state forms the northern boundary of California? What degree of latitude divides these states? What country on the south? What parallel named on the map nearly marks the southern boundary? How many degrees north and south does this state extend? How many miles? How is it bounded on the east? How on the west? Its average width is how many miles, according to the scale? What is the length of its coast line? Its general direction? What meridian nearly equally divides the state? What points on the Atlantic coast correspond with its northern and southern limits?

Surface.—What mountain range in the eastern portion of California? Its direction and extent? What general mountain range in the western part? Its direction and extent? What is the character of the country between these ranges? What is the most important valley in the northern portion? Describe its extent. The most noted valley in the southern-central portion? How extensive? What is the character of the seacoast? What are the most noted mountain peaks? Where is the Yosemite region? What is the surface of the southern part of the state? How is this peculiar as shown by the rivers?

Lakes and Rivers.

—What is the most important river of California? Describe its course. Through what bodies of water does it reach the ocean? What large stream from the south flows into the same waters? In what directions do the tributaries in this central river system flow? What considerable streams rise in the Coast Range and empty into the Pacific Ocean? Name the principal lakes. Which is the largest, and where is it located? What noted lake at the angle of the state and partly in Nevada? What peculiarity have all these lakes? *Ans.*—They have no surface outlet.

Counties.—How many counties in California? Name those located in the Sacramento valley. Those that border on San Francisco Bay. Those that border on the Pacific Ocean south of San Francisco. North of San Francisco. [What county do you live in? Bound it. In what part of the state? In what direction, and how far, from the capital? What is the county seat?] Which is the largest county in extent? The smallest?

Cities.—Name and locate the state capital. The largest city. How far, and in what direction, from the capital? What chief cities in the central part of the state? In the northern half? In the southern half? What is the most important seaport? Where located? What others? Are there many harbors on the coast? What parts of the state are most thickly settled? What parts the most sparsely settled?

NEVADA.

Situation.—How is Nevada bounded on the north? On the east? What state forms most of the boundary on the south and the boundary on the west? What parallel marks its northern limit? What meridian its eastern limit? What is the shape of the state? In what high natural region is the state located? In what part of this plateau?

Surface.—What is the general character of the surface? What are the principal mountain ranges in the western part? In the middle part? In the eastern part? Is the general elevation high?

Lakes and Rivers.—What lakes in the north-western part? What one partly in California? Have these lakes any surface outlet? Name and locate the largest river. Name its chief tributaries on the south. On the north. What part of the state does not appear to be well watered?

Counties and Cities.—How many counties in Nevada? How do they compare in extent? Name the three central counties. What counties west of Churchill County? What and where is the capital of the state? What other chief cities, and where located? [What county do you live in? Bound it. In what part of the state? What is the county seat?]

CALIFORNIA.



SHEEP RANCHE

DESCRIPTION.

[Area, 158,360 square miles. Population (1880), 864,686; estimated population (1883), 1,000,000.]

I. SITUATION AND EXTENT.

Situation. — California, the largest and most populous of the Pacific States, borders on the Pacific Ocean. It is included between $32^{\circ} 31'$ and 42° north latitude, and 120° and $124^{\circ} 15'$ west longitude.

Extent. — In shape it is an irregular oblong, about 750 miles long and 200 miles wide. It is three times as large as the New England States, and, excepting Texas, is the largest state in the Union.

II. SURFACE.

Physical Divisions. — California may be divided into five distinct sections: (1) the mountain region of the Sierra Nevada; (2) the plains of the Sacramento valley; (3) the coast belt; (4) the plateau east of the Sierra Nevada, on the border of the Great Basin; (5) the Colorado desert, in the south-east.

Mountains. — The Sierra Nevada Mountains extend north and south nearly two-thirds of the entire length of the state. The average width of this great range is about 70 miles. The western slope to the Sacramento valley is very gradual, and is 60 miles long; the eastern slope to the Great Basin, short and precipitous, not exceeding 10 miles in length.

The loftiest summits are Mount Whitney (14,887 feet) in the south, and Mount Shasta (14,440 feet) in the north. The average height of the crest summits is from 6,000 to 9,000 feet.

The higher peaks of this range are snow-clad all the year round, and are the retreats of numerous small glaciers, — the remaining fragments of a system of mighty glaciers that once covered the entire chain.

The Coast Range extends in parallel ridges, near the Pacific, the entire length of the state, 750 miles. It is from 20 to 40 miles wide, and is less than half the average height of the Sierra Nevada.

Its most noted peaks are Mount Hamilton (4,448 feet), the site of the



SACRAMENTO.



VINE-GROWING.

famous Lick Astronomical Observatory; St. Helena, in Napa valley (4,343 feet); Mount Tamalpais (2,604 feet), and Monte Diablo (3,848 feet), near the Bay of San Francisco; and Mount San Bernardino (11,600 feet), in the southern part of the state.

Valleys. — In the central part of the state the Sierra Nevada and the Coast Range are nearly parallel; but in the north and towards the south the two chains run together, and inclose the Sacramento valley. This great central valley is 400 miles in length and from 20 to 50 miles in width. It is drained from the north by the Sacramento River, and from the south by the San Joaquin. The Coast Range is intersected

by numerous small valleys opening towards the ocean, the most important of which are the Russian River, Napa, Santa Clara, Salinas, and San Gabriel valleys.

The Colorado desert, in the south-eastern part of the state, east of the San Bernardino Mountains, belongs to the Great Basin, but has a very moderate elevation, and in some places is below the level of the sea. It is dry, sandy, hot, and barren.

The plateau region, east of the Sierra Nevada, is a part of the Great Basin, which includes Nevada and Utah. It is an arid country, generally destitute of vegetation, with the exception of sage brush and bunch grass and the forests on the eastern slopes of the Sierra Nevada Mountains.

Scenery. — California is noted for its picturesque scenery.

The Yosemite Valley, in the heart of the Sierra Nevada, attracts tourists from all parts of the world. It is a glacial valley seven miles long, and a mile and a half wide, with almost vertical walls of solid granite from 3,000 to 4,000 feet in height. It has numerous waterfalls, of which the most remarkable is the Yosemite Falls, where the water plunges down 1,600 feet in one unbroken sheet, and 2,600 feet in three leaps.

Mount Shasta, in the extreme northern part of the state, is a volcanic cone, which rises 14,440 feet above the level of the sea, and 10,000 feet above the level of the surrounding plateau. It is one of the most beautiful of mountains; and the surrounding country is a favorite resort for tourists and hunters.

The Big Tree Groves, near the Yosemite Valley, contain some of the largest trees in the world.

Lake Tahoe is a favorite resort for summer tourists.

III. DRAINAGE.

The two largest rivers, the Sacramento and the San Joaquin, drain the Sacramento basin, and flow into the Bay of San Francisco. Their tributaries rise in the summits of the Sierra Nevada, which supply an abundance of water from melting ice and snow during the long dry season.

The Sacramento River, 400 miles long, rises in the lakes of the mountain region around Mount Shasta, and flows south into the Bay of San Francisco. It is navigable for small steamers to Red Bluff, 300 miles. Its chief tributaries are the American, Yuba, and Feather rivers.

The San Joaquin, 350 miles long, rises in the Sierra Nevada Mountains, and flows north into the Bay of San Francisco. It is navigable for large steamers to Stockton, 120 miles, and for small steamers 75 miles farther. Its chief tributaries are the Kings, Kern, Merced, Tuolumne, Fresno, Stanislaus, Calaveras, and Mokelumne rivers.

The smaller rivers which flow directly into the Pacific are the Klamath River, Eel River, and Russian River, north of the Bay of San Francisco; and the Salinas River and Santa Ana River, to the south of that bay.

The rivers of the plateau and desert region east of the Sierra Nevada Mountains have no outlet to the ocean. They are small streams that terminate in salt lakes, or disappear by evaporation in the "sinks" of the desert.

The most important of these rivers are the Mohave (*mo-hä've*), which sinks in the sands of the Mohave desert; Owens River, which flows into Owens Lake (salt); the Truckee, which flows into Pyramid Lake in Nevada; Carson River; and Walker River.

Lakes. — Lake Tahoe, two thirds in California and one third in Nevada, is in the Sierra Nevada Mountains, at an elevation of about 6,000 feet. It is 20 miles long, 10 miles wide, and is noted for its beautiful mountain scenery.

Clear Lake, in the Coast Range, north of the Bay of San Francisco, is a favorite summer resort.

Tulare Lake is a large and shallow sheet of water which lies in the southern part of the Sacramento valley, and has its outlet in the San Joaquin River.

Mono Lake lies at the foot of the eastern slope of the Sierra Nevada, in a region of extinct volcanic cones. Its waters, like those of Great

Salt Lake in Utah, are so intensely salt, bitter, and alkaline, that no fish can live in them.

Owens Lake, south-east of Mono, is also a saline lake.

In the northern part of the state, on the boundary line of Oregon, there is a group of fresh-water lakes, of which the largest are Goose, Rhett, and Klamath lakes.

IV. CLIMATE.

The climate of California is sub-tropical. There are two seasons, — a dry season, from May to November (summer); and a rainy season, from November to May (winter). Snow falls only in the mountain regions. In general, the climate is healthful, breezy, and invigorating, subject to no sudden extremes of heat and cold. In the coast belt the climate is remarkably mild and equable. In the Sacramento basin and the foot-hills of the Sierra Nevada the summer is very hot and dry, but the rainy season is cool and delightful.

The rain-winds of California are the south-west return trade-winds, which have their moisture condensed as they strike the cool mountain slopes and summits.

In summer the great tropical rain-belt of the trade-winds is moved from 7° to 10° farther north than in winter. As a consequence the return trade-winds descend to the earth mostly to the northward of California. Besides, any rain-clouds falling upon California have their moisture dissipated and absorbed by the hot air rising from the heated earth during the long, dry, hot summer.

The cause of the equable climate along the coast belt is the return Japan current, which moves in a broad stream from 20 to 30 miles wide the entire length of the coast. This current in winter is warmer than the neighboring land: in summer it is cooler. This difference of temperature renders the climate more equable, and also causes the dense fogs prevailing along the coast both in summer and winter.

The strong, chilling, and fog-laden winds that blow in San Francisco during the summer months are caused by the cold-air currents that rush from the ocean through the Golden Gate into the heated valley of the Sacramento.

V. NATURAL ADVANTAGES.

Soil. — The soil of the valleys and rolling hills is fertile and easily tilled, and is well adapted to the production of the cereals and the vine. The tulé lands along the banks of the Sacramento and the San Joaquin are exceedingly productive when reclaimed and protected by levees from overflow.

Minerals. — California is rich in minerals, of which the most important is gold. The gold region lies chiefly on the western slopes of the Sierra Nevada Mountains.

Quicksilver-mines are numerous in the northern part of the Coast Range.

Petroleum is found in the coast belt south of San Francisco.

The only coal-mines in the state which are extensively worked are near Monte Diablo, in Contra Costa County.

There are also in California valuable deposits of iron, copper, and tin, though they are not extensively worked.

Forests. — The western slopes of the Sierra Nevada, and of the Coast Range north of the Bay of Monterey, are covered by extensive forests of conifers, such as pine, fir, and redwood.

The most durable lumber for building purposes is supplied by the redwood trees of the Coast Range.

The oak and sycamore are found in the valleys and foot-hills.

The Sacramento valley, the southern coast belt, and the plateau and desert region east of the Sierra Nevada Mountains, are almost destitute of trees.

The "Big Trees" (*Sequoia gigantea*) are among the wonders of the world. Some of these trees are over 100 feet in circumference and 300 feet in height. The best known groves are the Calaveras Grove and the Mariposa Grove, both near the Yosemite Valley. There is a forest belt of these trees, from three to six miles in width, extending along

the Sierra Nevada from the Yosemite region southward for 120 miles. The *Sequoia* furnishes excellent lumber resembling redwood.

VI. INDUSTRIES.

Agriculture is the leading occupation, the annual wheat-crop alone exceeding in value the annual product of the gold and silver mines. Owing to the diversity of climate, surface, and soil, the agricultural products are exceedingly varied.

The Cereals. — In wheat-growing, California ranks as one of the leading states. Barley and oats are extensively raised.

The Grape. — The culture of the grape ranks next in importance to wheat-raising. The vine thrives in nearly all parts of the state below an elevation of 4,000 feet. The annual wine product already exceeds 12,000,000 gallons. In the hot and dry Sacramento basin and in the southern part of the state the grapes are made into raisins.

Fruit. — The central and northern sections of the state are favorable to the culture of apples, pears, peaches, plums, prunes, apricots, and cherries. Great quantities of plums and apricots are put up in cans for export, and pears and grapes are extensively shipped by rail to Eastern cities.

Dried prunes, plums, and peaches are important articles of export. The coast belt south of Santa Barbara is noted for the production of the citrus fruits, — oranges, lemons, and limes.

Other Products. — Bee-culture is an important industry in San Diego and Los Angeles counties, and great quantities of the finest honey are sent to Eastern markets. Olive-oil is an important product of the olive-orchards. Cotton and tobacco grow in the state, but are not extensively cultivated. Potatoes and other vegetables are grown along the coast and in the bay counties.

Mining. — For twenty years after the discovery of gold in 1848, mining was the leading industry in California; but since that period it has ranked second in importance to agriculture.

The annual gold product does not now exceed \$17,000,000; but formerly, for many years in succession, the annual yield exceeded \$50,000,000. The total product of the mines since 1848 is estimated to exceed \$1,000,000,000.

Gold is obtained from "quartz-mines" by crushing gold-bearing quartz-rock, and from gravel banks by washing away the earth with streams of water forced by heavy pressure through strong hose-pipe.

Prominent among the other industries are stock-raising, lumbering, varied manufactures, and a large domestic and foreign trade.

Stock-raising. — The rolling hills and the mountain slopes of California afford pasturage for large herds of cattle, horses, and sheep.

The coast belt north of San Francisco is noted for its dairy products.

Lumbering. — In the redwood forests of the coast north of San Francisco, and in some parts of the Sierra Nevada, saw-mills are numerous, and lumbering is the chief industry.

Manufactures. — The most important manufactured products are lumber, flour, wine, liquors, mining machinery, iron-work, woolens, boots and shoes, leather, clothing, canned and dried fruits.

Commerce. — California has an extensive export and import trade. It is connected by steamship lines with China, Japan, India, the Sandwich Islands, Australia, Mexico, and South America. It is connected with the Atlantic states by two transcontinental railroads, by a steamship line *via* Panama, and by sailing-vessels around Cape Horn. Its chief exports are wheat, wine, wool, gold, dried and canned fruits. Its chief imports are tea, coffee, sugar, and manufactured articles of all descriptions.

VII. GOVERNMENT.

The government of California is administered under the provisions of the state constitution, which was adopted in the year 1879.

State Government. — The officers of the executive department of the state government are the governor, lieutenant-governor, secretary of state, comptroller, treasurer, attorney-general, surveyor-general, clerk

of the Supreme Court, and superintendent of public instruction, all elected by direct vote of the people for a term of four years.

The Legislature consists of a Senate of forty members, elected for four years, and of an Assembly of eighty members, elected for two years. The Legislature holds biennial sessions.

The judicial power is vested in the Senate sitting as a court of impeachment, in a Supreme Court, superior courts, justices of the peace, and such inferior courts as may be established by law. The Supreme Court consists of a chief justice and six associate justices.

Local Government. — The officers of a county government are a board of supervisors, board of education, treasurer, assessor, tax-collector, district-attorney, sheriff, surveyor, county clerk, and superintendent of common schools. The unit of political division is the school district, the officers of which consist of three school trustees, elected by direct vote of the people for a term of three years.

National Representation. — California is represented in Congress at Washington by two senators and six representatives, and hence is entitled to eight electoral votes.

VIII. EDUCATION.

The state has a well-organized system of public schools.

The state constitution provides that a free school shall be maintained in every school district for at least six months in the year.

The schools are supported partly by state, by county, and by district taxation.

Each county has a county superintendent of common schools, elected by the people for a term of four years, and a county board of education, consisting of the county superintendent and four members appointed by the county board of supervisors. The county board of education prescribes the text-books and course of study, and examines teachers. Each school district has a board of trustees of three members, elected at special school elections for three years, one member being elected each year. The school trustees appoint teachers, build schoolhouses, and have the local government of the schools.

California raises annually, by direct state tax, more than a million of dollars for the support of public schools; and the total expenditure for schools in 1883 was over three millions of dollars.

State Institutions. — The State University of California, at Berkeley, is well endowed, and is free to both young men and young women. The State Normal School, at San José, is attended by a large number of students; and the Branch State Normal School at Los Angeles is a flourishing institution. The Institution for the Deaf and Dumb and Blind is located at Berkeley.

There are numerous denominational colleges and seminaries and many excellent private schools.

IX. HISTORY.

Upper or *Alta* California was first explored by the Spaniards, within fifty years after the discovery of America by Columbus.

The name "California" was given by the Spaniards to the region north of Mexico. The name is taken from an old Crusader romance which was very popular in the days of Cortez.

The Spaniards made their first settlement in Upper California, at San Diego, in 1769. San Diego was the first of a series of Missions, which the Spanish Catholic missionaries established in California, running north from San Diego to San Francisco. Into these Missions the Indians were gathered, and the Padres, or Roman Catholic priests, taught them the arts of civilization. They cultivated the vine, the olive, and the fig, and lived in spacious houses, built of *adobe*, or sun-dried bricks.

In 1822 Mexico threw off the yoke of Spain, and became an independent republic. *Alta* or Upper California was then made a Mexican province. The first American settlers found their way into California in 1843. In 1846 the war between the United States and Mexico began. The Americans in California immediately raised the "bear flag," and asserted their independence of Mexico. At this time Capt. John C.

Fremont, who had been sent west to survey a new route to Oregon, arrived in California. Fremont united with the Americans, who were successful in several encounters with the Mexicans.

In July, 1846, Commodore Sloat, then commander of the United States fleet on the Pacific coast, hearing of the declaration of war, took possession of Monterey. A little later, Stockton superseded Sloat. He took San Diego, and, aided by Fremont, captured Los Angeles. Late in the year, Gen. Kearney, with a small column from the army operating against Mexico on the northern line, reached California after a long and toilsome march from Santa Fé, in New Mexico. Kearney arrived in time to take part in the battle of San Gabriel, Jan. 8, 1847. This action overthrew the Spanish power, and established the authority of the United States in California.

The Mexican war was ended by the treaty of Guadalupe Hidalgo, Feb. 2, 1848. It was just before this treaty was concluded that the first discovery of gold in California took place (Jan. 19, 1848), — a discovery which resulted in founding a great state on the Pacific coast.

The news of the discovery reached the States; and it soon spread throughout the world that California was the golden land, the true "El Dorado." An extraordinary rush of immigration to the diggings now set in. Some crossed the thousands of miles of dreary and desolate plains, others braved the deadly climate of the Panama route, while still others made the long circumnavigation of Cape Horn. In 1849, between the months of April and January, nearly forty thousand emigrants arrived at the port of San Francisco.

California was soon ready to become a state. In September, 1849, a convention met at Monterey and framed a state constitution. Congress admitted California into the Union, Sept. 9, 1850.

The history of California may be divided into two periods, — the period of "gold and experiment," and the period of "wheat and growth."

The first period began with the discovery of gold, and lasted till about 1860. During this period the great object of the people was to accumulate a fortune and return "home." The second period began when the population ceased to be exclusively a mining population and commenced to develop the agricultural resources of the state.

After some years it was found that the yearly returns derived from the export of wheat were fully equal to the value of the gold produced.

With the period of "wheat and growth," people began to think of making their homes on the Pacific coast. They found they had every inducement to do so in its remarkable climate and its rich returns for human industry.

The subsequent progress of California has been both rapid and healthful. The pioneers of California were, as a rule, young men of energy and brains. Many were finely educated. This has given a very bright and progressive character to California life and civilization.

X. POLITICAL DIVISIONS.

California is divided into fifty-two counties, and contains the following leading cities and towns: —

San Francisco, the largest city of the Pacific coast, is a great commercial and manufacturing seaport. In foreign commerce it ranks as the fourth city in the United States. The foundation of its commercial greatness is its magnificent harbor, the finest on the whole coast.

The city is situated on a low sandy peninsula lying between the Bay of San Francisco and the Pacific Ocean. The bay is a beautiful sheet of water 60 miles long and 10 miles wide. The entrance to this landlocked harbor is through the Golden Gate, a narrow strait one mile wide.

The manufactures consist of mining-machinery, iron-work, woolen goods, boots and shoes, leather, clothing, cigars, carriages, furniture, and agricultural implements.

The chief exports are wheat, wine, wool, gold, canned and dried fruits. The chief imports are manufactured goods of all kinds, sugar, coffee, and tea.

San Francisco is the site of a United States branch mint, the largest and finest in the world.

Sacramento, in Sacramento County, on the Sacramento River, 120 miles from its mouth, is the capital of the state. The state Capitol is an imposing building, erected at a cost of three millions of dollars. Sacramento is the site of the extensive machine-shops of the Central Pacific Railroad. It is in the center of a rich farming region, and has an extensive trade.

Oakland, in Alameda County, on the east side of the Bay of San Francisco, 10 miles from San Francisco, ranks in population as the second city in the state. It is closely connected with San Francisco by ferries. It is a favorite place of residence on account of its trees, its gardens, and its mild climate. The city has important manufactories of hosiery, cotton goods, nails, etc.

Los Angeles, in Los Angeles County, is the business center of Southern California. It is noted for its orange groves and vineyards, and is a favorite winter resort for Eastern tourists. It is the seat of the Branch State Normal School.

San José, in Santa Clara County, is the trade center of the beautiful and highly cultivated valley of Santa Clara. It is the seat of the State Normal School and of the College of Notre Dame.

Stockton, in San Joaquin County, on the San Joaquin River, has a large agricultural trade with the surrounding country. It is the seat of the State Asylum for the Insane.

Alameda — contiguous to Oakland, is, like that city, a famous place of residence for people doing business in San Francisco.

Berkeley — contiguous to Oakland on the north, is the seat of the University of California and of the Institution for the Deaf and Dumb and Blind.

Chico — in Butte County, has an important trade in farm products and lumber.

Eureka — in Humboldt County, on Humboldt Bay, in the redwood region, has the largest lumber trade in the state.

Fresno — in Fresno County, in the southern part of the San Joaquin valley, is the trade center of a large vine and fruit growing region made fertile by irrigation.

Grass Valley — in Nevada County, is a mountain town in the midst of extensive quartz-mines.

Modesto — in Stanislaus County, in the San Joaquin valley, on the line of the Southern Pacific Railroad, is the trade center of a large agricultural region.

Monterey — in Monterey County, on Monterey Bay, is a fashionable summer resort.

Marysville — in Yuba County, has an extensive mining and agricultural trade.

Napa — in Napa County, on the Napa valley branch of the California Pacific Railroad, commands the trade of the beautiful and fertile Napa valley. It is the site of a branch State Asylum for the Insane.

Nevada City — in Nevada County, in the Sierra Nevada Mountains, is situated in a rich gold region, and has an extensive mining business.

Petaluma — in Sonoma County, on the San Francisco and North Pacific Railroad, and at the head of navigation on Petaluma Creek, is an important shipping point for the farm products of Sonoma County.

Port Costa — in Contra Costa County, on the Bay of San Francisco, 30 miles from the city of San Francisco, is the chief point for the ocean shipment of wheat. It contains immense warehouses for storing grain, and has the largest flour-mill in the state.

Placerville — in El Dorado County, is the terminus of the Sacramento and Placerville Railroad. It was formerly a famous mining town.

Red Bluff — in Tehama County, at the head of light steamer navigation on the Sacramento, commands the trade of the upper Sacramento valley.

Santa Barbara — in Santa Barbara County, on

the seacoast, is a favorite resort for invalids and tourists, on account of its charming climate.

San Bernardino — in San Bernardino County, in the southern part of the state, is surrounded by vineyards and orange groves. It is on the line of the Southern Pacific Railroad, and has an extensive trade with Arizona.

Santa Cruz — in Santa Cruz County, is a noted summer resort for sea-bathing. It has manufactures of paper, powder, lime, and leather.

Santa Clara — in Santa Clara County, is surrounded by an extensive fruit-growing region. It is the seat of the University of the Pacific and of the Santa Clara College.

San Diego — in San Diego County, on San Diego Bay, has one of the finest harbors of the Pacific coast. It is connected by rail with the Southern Pacific Railroad at Colton.

San Quentin — in Marin County, on the Bay of San Francisco, is the site of the State Prison of California.

Santa Rosa — in Sonoma County, is the business center of the fertile Russian River valley.

San Rafael — in Marin County, on the shores of the Bay of San Francisco, is a favorite summer resort on account of its delightful summer climate.

St. Helena — in Napa valley, is surrounded by extensive vineyards, and has an extensive trade in wine.

Truckee — in Nevada County, near the crest of the Sierra, at an elevation of about 6,000 feet, has extensive saw-mills and lumber manufactories, run by the water-power of the Truckee River. It is in the vicinity of Donner Lake and Lake Tahoe. In winter snow falls to a great depth.

Vallejo — in Solano County, on the Bay of San Francisco, is the bay terminus of the Napa Valley and the California Pacific railroads. Near the city, on Mare Island, is a United States navy-yard, — the only one on the Pacific coast.

Visalia — in Tulare County, is the trade center of an extensive grain-growing region in the San Joaquin valley.

Yreka — in Siskiyou County, is in the extreme northern part of the state. It was once a famous mining town, but is now the trade center of an agricultural and stock-raising country. It is on the line of the California and Oregon Railroad.

NEVADA.



HOISTING WORKS



SUTRO TUNNEL.



LAKE TAHOE



QUARTZ MILL

DESCRIPTION.

[Area, 110,700 square miles.
Population (Census of 1880),
62,266.]

I. SITUATION AND EXTENT.

Situation. — Nevada lies east of California, and includes the western part of the central plateau known as the Great Basin.

This basin, between the Sierra Nevada and the Wahsatch Mountains, is 500 miles in width, and is crossed by more than one hundred short mountain ranges.

Nevada is included between 35° and 42° north

latitude and 114° and 120° west longitude.

Extent. — It is nearly 500 miles in length north and south, and 300 miles in width. In area it is about two-thirds the size of California, and about equal to Colorado or Arizona.

II. SURFACE.

This state is a vast plateau, elevated about 4,000 feet above the level of the sea. It is crossed north and south by short detached mountain ranges and spurs, over sixty in number, generally lying in parallel lines, with narrow intervening valleys.

Mountains. — The highest mountain summits are Mount Wheeler (12,800 feet), Mount Moriah (12,000 feet), and Granite Mountain (12,000 feet), — all in the Snake Range, near the boundary line of Utah.

The most noted peak is Mount Davidson (7,827 feet), famous for its immense mineral treasures.

Valleys. — Nevada has no broad river valleys. Its longest rivers, the Humboldt and the Carson, are bordered in a part of their courses by a narrow strip of green and fertile meadow lands. Many of its wide, open valleys lying between mountain ranges have no rivers except the small, narrow streams that rush down from the melting snows, and rapidly disappear on reaching the plains.

The valleys and plains are covered in many places with sage-brush and bunch-grass, with here and there an alkaline flat of dazzling white, or a small lake of intensely salt and bitter water.

General Aspect. — The general aspect of the country is exceedingly barren, desolate, and uninviting.

III. DRAINAGE.

As Nevada lies in a region of light rains, its rivers are small and comparatively few. Its only waters that reach the Pacific are a few small streams that flow into the Colorado. All its other rivers flow into saline lakes, or terminate in sinks in the sandy deserts.

The Humboldt, the largest and longest river, rises in the north-eastern part of the state, flows south-westerly in a winding course of 350 miles, and disappears in the broad, shallow, and brackish waters of the Humboldt lake and sink. The Central Pacific Railroad runs along the narrow valley of this river for more than 200 miles.

Truckee River, which is the outlet of Lake Tahoe, is 90 miles long, and flows into Pyramid Lake. Lake Tahoe is partly in Nevada, and partly in California.

The Carson River rises in the Sierra Nevada Mountains, and flows easterly into Carson Lake; and Walker River, rising in the same mountains, flows into Walker Lake.

The Colorado is merely a boundary river. None of the rivers of Nevada are navigable, but they are valuable for irrigation purposes.

IV. CLIMATE.

The average annual rainfall in Nevada does not exceed five inches: hence the climate is exceedingly dry. The extremes of heat and cold are much greater than they are nearer the coast in the same latitude.

The cause of the dryness of the Great Basin is the Sierra Nevada Range, which condenses the greater part of the moisture in the rain-winds from the Pacific. In summer, on the arid plains, the heat during the day is intense; but, owing to rapid radiation, the nights are always cool.

V. RESOURCES AND INDUSTRIES.

Agriculture is possible in Nevada only where the soil can be irrigated by the water of mountain streams.

The extent of land capable of being cultivated depends entirely on the water-supply. The farms of Nevada lie chiefly along the banks of the Carson River, Walker River, and Humboldt River, where the products are grain, hay, vegetables, and fruit.

In parts of the state the extensive plains, covered with sage-brush and bunch-grass, afford fine natural pasturage for cattle and sheep, and stock-raising is an important pursuit.

Minerals.—Nevada, though meager in vegetation, is rich in minerals, and mining is the chief pursuit of the people. Silver-mines are found in nearly every mountain range in the state.

The most noted mines are those of the Comstock Lode, on Mount Davidson, in Storey County, in the western part of the state. These are called silver-mines, though they yield both gold and silver. For many years after their discovery in 1859 they were the richest mines in the world, yielding an annual product of \$30,000,000. The mines of the Eureka and White Pine Districts were also famous for their richness. The total silver product of Nevada in 1881 exceeded \$8,000,000.

Lead is obtained in large quantities in the reduction of silver ores. Salt is found spread in thin beds over the surface of low basins, and in the form of rock-salt in solid crystalline masses.

Nevada also contains valuable deposits of soda, sulphur, borax, and antimony, though none of these minerals are extensively worked.

Forests.—The greater part of Nevada is almost treeless.

The forests are limited to a narrow belt on the eastern slopes of the Sierra Nevada, and the cañons of the mountain ridges, where the pine, fir, and spruce reach a considerable size, though not so large as on the California slopes of the Sierra Nevada.

The nut pine yields a great abundance of edible nuts, which the Indians use as an important article of food.

Commerce.—The trade of Nevada consists in the export of bullion and ores, live-stock and wool, and in the import of bread-stuffs, machinery, and manufactured articles of all descriptions.

The most important railroad is the Central Pacific, which extends the entire width of the state.

There are several short branch roads, of which the most important are the Virginia and Truckee, from Reno to Virginia City; the Eureka and Palisade; the Battle Mountain and Austin.

VI. GOVERNMENT.

The present constitution was adopted in 1866, and its provisions are of the most liberal character.

The officers of the *executive department* of the government are the governor, lieutenant-governor, secretary of state, treasurer, comptroller, surveyor-general, attorney-general, and superintendent of public instruction, all elected by direct vote of the people, for a term of four years.

The *legislative department* consists of a Senate of twenty-five members, elected for four years, and an Assembly of fifty members, elected for two years. The sessions of the Legislature are biennial.

The *judicial department* consists of a Supreme Court, district courts, and justices of the peace, elected by direct vote of the people.

National Representation.—Nevada is represented in Congress at Washington by two senators and one representative, and is therefore entitled to three electoral votes.

VII. EDUCATION.

The public school system of Nevada resembles that of California.

The schools are under the general control of a State Board of Education, consisting of the governor, the superintendent of public instruction, and the surveyor-general. Each county has a county superintendent of schools, and each school district has a local district board of three trustees.

There is a State University at Elko. The schools of Virginia City, Gold Hill, and Carson are distinguished for their excellence.

VIII. HISTORY.

The soil of Nevada was part of the extensive territory acquired by the United States from Mexico by the treaty of Guadalupe Hidalgo, in 1848.

When the present boundaries of California were marked off, in 1850, the newly-acquired region to the east was organized as Utah Territory. This territory embraced nearly all of what is now the state of Nevada. While Nevada was a part of Utah it received a small Mormon population. These first actual settlers went to Nevada in 1848. The population was very small till the time of the first great silver discovery, in 1859, when it increased rapidly by emigration from California. A number of towns were founded, among which Virginia City and Carson took the lead.

Nevada was made a separate territory in 1861, and in 1864 was admitted into the Union as a state.

IX. POLITICAL DIVISIONS.

Nevada is divided into thirteen counties, each of which has a local county government. It contains the following leading cities and towns:—

Virginia City (10,917), in Storey County, is the most noted mining town in the world. It is built on the steep slopes of Mount Davidson, at an elevation of 6,000 feet above the sea-level and of 2,000 feet above the surrounding plateau.

The ores of the famous mines that underlie the city are obtained by means of shafts and inclines, some of which reach a depth of more than 3,000 feet. The machinery of these mines for hoisting the ore, pumping the water, and ventilating the lower levels is the finest and costliest in the world. The lower levels are so intensely hot that the miners can work only half an hour at a time; and to strangers visiting the mines the heat is insufferable. The immense quantities of lumber used in timbering up the shafts and drifts in the mines are brought from the Sierra Nevada Mountains.

Gold Hill (4,531) is on the Comstock Lode, contiguous to Virginia City. Indeed, the two cities run together, and form but one town, though they have distinct city governments.

Some of the richest mines lie underneath the town. Both Gold Hill and Virginia City are supplied with water from the Sierra Nevada, brought by means of flumes and strong iron pipe. Both cities are distinguished for their excellent public schools.

Carson (4,229), in Ormsby County, is the capital of Nevada. It is situated near the foot-hills of the Sierra Nevada Mountains, and is abundantly supplied with the purest mountain water. It is the site of a United States branch mint.

Austin, in Lander County, is the center of the silver-mining district of Reese River.

Battle Mountain—on the line of the Central Pacific Railroad, is a shipping point of ores and mining supplies.

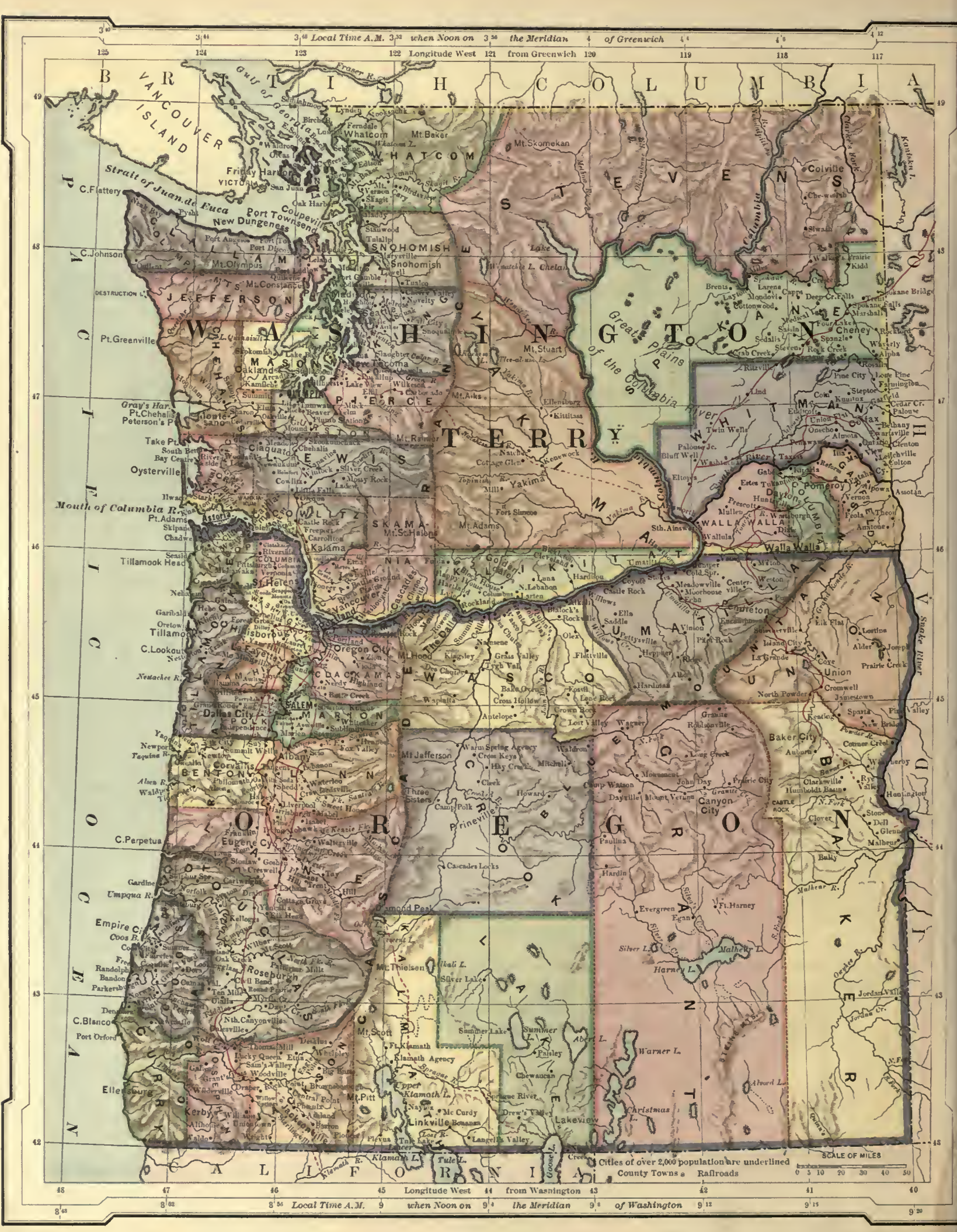
Elko—on the line of the Central Pacific Railroad, is the site of the State University.

Eureka—in Eureka County, is the center of one of the richest mining districts in the state. It is connected by rail with the Central Pacific Railroad at Palisade.

Hamilton—in White Pine County, lies in the center of a rich mining district.

Reese—in Washoe County, is on the Truckee River, on the line of the Central Pacific Railroad, at the point of its junction with the Virginia and Truckee Railroad.

Winnemucca—in Humboldt County, on Humboldt River, contains extensive workshops of the Central Pacific Railroad.



OREGON.



QUESTIONS ON THE MAP.

Situation. — What division north of Oregon? What river marks most of this boundary? What division on the east? What states on the south? By what is it bounded on the west? Between what parallels is it situated? Nearly between what meridians? According to the scale of miles, what is its width from east to west? What its length from north to south?

Surface. — What is the nature of the surface of the western portion? The central and eastern portion? What is the principal mountain range? Its location and extent? What high mountain peaks does it contain? What extensive river valley?

Lakes and Rivers. — What is the largest river? Describe its course. In what direction do its tributaries in this state flow? Name and describe the tributary which forms part of its eastern boundary. What considerable streams empty into the Pacific Ocean? What lakes in the southern part? Are they connected by rivers with the ocean?

Counties and Cities. — How many counties are there in Oregon? In what part of the state are the counties smallest in extent? Where the largest in extent? What counties border on the Columbia River? What counties border on the Willamette River to the west? What to the east? What is the capital, and where is it located? The largest city? What city near the mouth of the Columbia River? Name several cities located on the Columbia River. Several on the Willamette River. What proportion of the state appears from the map to be but sparsely settled?

DESCRIPTION.

[Area, 96,030 square miles. Population (Census of 1880), 174,768.]

I. SITUATION AND EXTENT.

Situation. — Oregon lies next north of California, bordering on the Pacific Ocean, and extending to the Columbia River, which separates it from Washington Territory on the north. It extends from 42° to $46^{\circ} 20'$ north latitude, and from $116^{\circ} 30'$ to $124^{\circ} 35'$ west longitude.

Extent. — In shape it is an oblong, 350 miles long east and



west, and 275 miles wide. In area it is a little more than half as large as California.

II. SURFACE.

Mountains. — Oregon is a mountainous state. The Cascade Range extends north and south the entire length of the state, at a distance of 120 miles from the coast. It divides the state into two distinct sections, East Oregon and West Oregon. The loftiest summit is Mount Hood, a volcanic cone 11,225 feet in height.

The Coast Range is made up of numerous broken ridges and spurs, the highest of which do not exceed an elevation of 4,000 feet. In the southern part of the state the most marked ridges are known as the Umpqua, the Rogue River, and the Calapoosa mountains.

The Blue Mountains are in the northern part of East Oregon.

Valleys. — The largest and most highly cultivated valley, the

Willamette, lies between the Cascade Mountains and the Coast Range. It is 140 miles long, and from 10 to 40 miles wide.

There are numerous coast valleys opening towards the Pacific, the most important of which are those of Rogue River and the Umpqua River.

Plateaus and Plains.—East Oregon is a plateau region which has an elevation of from 2,000 to 4,000 feet. The south-eastern section is an extension of the Great Basin. This is largely a desert region, covered with volcanic ashes, sand, and sage-brush, and dotted here and there with alkaline lakes.

The scenery along most of the rivers of the state is remarkably fine; and at the Cascades, where the Columbia breaks through the mountain walls of lava basalt, it is especially majestic and beautiful.

III. DRAINAGE.

The Columbia, with its tributaries, drains the greater part of Oregon. It forms the northern boundary of the state for a distance of 300 miles. It rises in the Rocky Mountains of the northern United States and British America, and flows south-westerly into the Pacific. Its chief branches in Oregon are the Willamette, Des Chutes, John Day, Umatilla, and Snake.

There are numerous short rivers flowing from the Coast Range directly into the ocean, of which the largest are Rogue River and the Umpqua.

The greater part of the lake country along the border of California is drained through that state by the Klamath River. In a part of the central plateau the rivers terminate in alkaline lakes, either within the state, or in Northern Nevada and California.

IV. CLIMATE.

The climate resembles that of California in respect to seasons, there being two seasons,—the wet or winter, and the dry or summer season. But the winters are colder and the rainfall greater than on the more southern Pacific coast.

Eastern Oregon has a drier climate than Western Oregon because the Cascade Mountains condense the moisture of the rain-clouds from the Pacific.

The climate of the coast belt of Oregon and of the Willamette valley is made cooler in summer and milder in winter by the Japan current, which flows southward along the coast. This current is warmer than the land in winter, and colder in summer, thus causing the prevailing fogs along the coast of Oregon as well as of California.

On the coast there is very little snow or ice; but in the mountain valleys and in Eastern Oregon there is considerable snowfall, followed by heavy rains toward the end of the winter season. The summers in the mountains are warm and delightful.

V. RESOURCES.

The soil of the Willamette valley, the coast valleys, the Des Chutes valley, and the valley of the Columbia in Eastern Oregon, is a rich black loam, and is very fertile, yielding in abundance all the products of the temperate zone. It is especially adapted to the production of the cereals, root-crops, and fruits. There are also large tracts of natural pasture-lands adapted to grazing of herds of cattle and sheep.

The gold-mines of Eastern Oregon are worked to a considerable extent, and the Coast Mountains contain valuable coal-deposits.

The great forest belt between the Cascade Mountains and the coast constitutes one of the chief resources of the state. The trees are mostly coniferous, the pine, fir, and cedar; being valuable for lumber and for the production of ship-stores,—tar, turpentine, and rosin.

VI. INDUSTRIES.

Agriculture is the leading industry of the state; and the chief product is wheat, of which many millions of bushels are annually exported. The other important farm-products are barley, oats, potatoes, garden vegetables, and fruit,—such as

apples, pears, peaches, apricots, plums, and cherries. The broad plains of Eastern Oregon afford good grazing-grounds for cattle, horses, and sheep; and wool and live-stock are largely exported.

In 1880, according to the report of the tenth census, there were produced 7,480,000 bushels of wheat, 4,385,000 bushels of oats, 1,359,000 bushels of potatoes, 920,000 bushels of barley, 126,000 bushels of Indian-corn, and orchard products to the value of \$583,000. The improved land in farms amounted to 2,198,000 acres, which was about double that of 1870, and was estimated to be worth about \$57,000,000.

Manufactures.—The saw-mills of Oregon produce immense quantities of lumber. Oregon pine is shipped to all parts of the western coast of America, and even to more distant quarters of the globe.

The forests also furnish material for ship-building, which is a large and growing industry. The other important manufactures are woolen goods, iron-work, carriages, leather, and pine products. In 1880 the capital invested in manufactures was over \$6,312,000, and the annual product over \$10,000,000 in value.

Fisheries.—The salmon fisheries near the mouth of the Columbia are very extensive, and great quantities of canned salmon are exported.

Sea-fishing is also prosecuted by considerable numbers. The total value of the product of fisheries of Oregon in 1880 was over \$2,776,000. In the value of its fisheries product, Oregon ranked as the seventh state in the Union.

Commerce.—Wheat, lumber, and fish are the leading exports. Wheat is shipped direct from Portland and Astoria to Liverpool and China. Lumber, masts, and spars are shipped to California, South America, and the Atlantic States. Other articles of export are wool, hides, and bullion. The chief imports are manufactured goods of all kinds, coffee, tea, and sugar.

Oregon carries on an extensive coasting trade with California, Alaska, British Columbia, and the ports on Puget Sound. It has railroad communication with California by means of the Oregon and California Railroad, now nearly completed. It is connected with the eastern states by the Northern Pacific Railroad, which has its western terminus at New Tacoma, on Puget Sound in Washington Territory; and by the Oregon Branch of the Union Pacific Railroad, which enters the state from the south-east.

The Columbia River system is navigable for ships to Portland (on the Willamette, 12 miles above its junction with the Columbia), 112 miles from the sea. The main stream of the Columbia is also navigable for smaller vessels to the Cascades, 60 miles above the mouth of the Willamette. There is a short railroad around these Cascades, above which the river is navigable for steamers to the Dalles. Here there is a second railroad around the rapids, above which small steamers ascend the Snake River to Lewiston in Idaho,—a distance of 275 miles from the Dalles, and 475 from the Pacific Ocean. The Willamette is navigable for steamers of considerable size as far south as Eugene City during a large part of the year. This and other rivers are rendered navigable by means of locks and portage-railroads, and thus contribute largely to the commercial facilities of the state.

VII. GOVERNMENT.

The government of Oregon is administered in accordance with the provisions of the State Constitution, adopted in 1859.

The officers of the *executive department* of the state government are the governor, lieutenant-governor, secretary of state, treasurer, and superintendent of public instruction, all elected by direct vote of the people for a term of four years.

The *legislative department* consists of a Senate of thirty members, elected for four years, and a House of Representatives of sixty members, elected for two years.

The *judicial* power is vested in a Supreme Court, circuit courts, county courts, and justices of the peace.

Oregon is represented in the National Congress by two senators and one representative, and has three electoral votes for President of the United States.

VIII. EDUCATION.

The public schools of Oregon are under the general control of a State Board of Education, consisting of the governor, the secretary of state, and the superintendent of public instruction. Each county has a county superintendent of schools, and each school district a school board of three members.

The schools of Portland are noted for their excellence, and the country district schools are steadily increasing in excellence.

In addition to its excellent system of public schools, there are a number of superior private institutions of high grade in the state. Among these are Pacific University, at Forest Grove; McMinnville College, at McMinnville; Willamette University, at Salem; Blue Mountain University, at La Grande; Ashland College and Normal School, at Ashland; and the Bishop Scott Grammar School, at Portland.

IX. HISTORY.

The coast of Oregon, though occasionally visited by navigators from early times, did not attract much attention until near the close of the last century. As early as the year 1788 two trading ships from Boston, under Capts. Kendrick and Gray, visited the Oregon coast. In 1792 Capt. Gray discovered the great river of Oregon, which he named the Columbia, in honor of Capt. Kendrick's ship. At this time this North Pacific country did not belong to any nation.

When the United States acquired from France the great territory of Louisiana, in 1803, President Jefferson sent an exploring party, under Lewis and Clark, to go to the head waters of the Missouri River, and thence advance across to the Pacific. These bold explorers, with a party of men, set out in 1804. They explored to the very head of the Missouri River, a distance of three thousand miles, then crossed to the head waters of the Columbia, and down that river to its mouth. This was the first exploration of this region.

The report of this exploration led John Jacob Astor, a far-seeing merchant of New York, to plan a settlement on the Oregon coast, with the view of fur-trading. Mr. Astor sent out one party across the continent, and another in a vessel; and in 1811 a settlement was made on the southern bank of the Columbia. This settlement was named Astoria. The British became very jealous of this American settlement, and set up a claim to the North Pacific region. By treachery Astoria was given up to the British "North-west Fur Company" in 1812.

The United States continued to assert its claim to the country. A great deal of correspondence on the subject between the two governments resulted. At last, in 1818, the United States and England agreed to a joint occupancy of the whole territory for ten years. In 1828 the treaty of joint occupancy was renewed, to terminate on either party giving a year's notice. Up to this time, the number of Americans in Oregon was trifling; and the first beginnings of real settlement were made in 1834. In that year a little band of Methodist missionaries established themselves in the lovely valley of the Willamette. Here they were joined by others, and several mission stations were founded.

No settlement of the conflicting claims of the British and Americans to this region was made till 1846. It was then agreed by a treaty that the American possessions should extend as far north as latitude 49°. Out of the bounds of Oregon were afterwards formed the state of Oregon and the territories of Washington and Idaho. Oregon was organized as a territory in 1848.

The growth of Oregon was very slow until after the discovery of gold in California. In 1850 Congress passed a law giving lands to settlers in Oregon. The country then began to fill up. In 1859 it was admitted as a state. Since the completion of the Pacific railroads its growth has been exceedingly rapid.

X. POLITICAL DIVISIONS.

Oregon contains twenty-three counties and the following leading cities and towns:—

Portland (17,577), in Multnomah County, is the business center and largest city of Oregon. It is situated at the head of navigation on the Willamette River, a little over twelve miles above its junction with the Columbia. It is an important railroad center, and is a manufacturing and commercial city.

From its location at the foot of the rich valleys of the Columbia and the Willamette, and at the head of ship navigation in the Columbia River system, it enjoys a commanding commercial position on the Pacific coast as the most important point between San Francisco and Puget Sound. Since the completion of the Northern Pacific Railroad the city has grown even more rapidly than before. The city has excellent public schools and other educational institutions.

Salem (2,538), in Marion County, south of Portland, 53 miles by rail, is the capital of the state. It has an extensive water-power, and has large flour and woolen mills. The Willamette River affords excellent shipping facilities, and the city is a distributing point for a large and wealthy agricultural section. Other manufactures are iron, leather, etc. The city is the seat of Willamette University.

Astoria, at the mouth of the Columbia, is a seaport, a summer resort, and the center of the business of canning salmon. The salmon fisheries employ several thousand men, and the value of the annual product of salmon exceeds \$3,000,000. The facilities for lumbering and ship-building are also great, and are being largely developed.

Albany, on the Willamette, south of Salem, has extensive flour-mills, saw-mills, carriage-factories, and machine-shops. It has a large trade with the interior, and by means of rail and river transportation has excellent shipping facilities.

Corvallis, the county seat of Benton County, is favorably located on the west bank of the Willamette, and is the seat of the State Agricultural College.

The Dalles, county seat of Wasco County, is situated at the Upper Cascade Rapids of the Columbia, 115 miles from Portland. It has great advantages as a manufacturing point, and is the center of trade for Eastern Oregon. This place is much visited on account of the splendid scenery of the Dalles of the Columbia.

Eugene City, at the head of steamer navigation on the Willamette River, is the seat of the State University, and is the shipping point for farm-products for a large section of the Willamette valley.

Jacksonville, county seat of Jackson County, in the southern part of the state, on the line of the Oregon and California Railroad, is the trade center of Southern Oregon.

Oregon City, county seat of Clackamas County, is situated about 12 miles south of Portland, on the Willamette. It has a valuable water-power, and contains flouring-mills, saw-mills, and the largest woolen-mills in the state. The Willamette is here made navigable by an extensive series of locks on the west bank of the river.

Roseberg, on the Umpqua River, is an important trading town on the Oregon and California Railroad.

Baker City, county seat of Baker County, is a growing place in Eastern Oregon on the line of the Oregon branch of the Union Pacific Railroad. Several prosperous mining districts are in the vicinity.

East Portland, opposite Portland, on the Willamette, is a busy and enterprising place, which shares the growth and prosperity of its neighboring city.

Among other places worthy of special mention, are **Dallas**, a manufacturing town, in Polk County; **Ashland**, near the California line, in Jackson County; **Forest Grove**, seat of the Pacific University, in Washington County; **Marshfield** and **Empire City**, near the coast, in Coos County; **McMinnville**, a railroad town and seat of the McMinnville College, in Yamhill County; **Pendleton**, center of a fine agricultural region, and county seat of Umatilla County; **Umatilla**, a shipping and trading town on the Columbia River; **Brownsville**; **Dayton**; **Halsey**; **Junction City**; **Oakland**; and **Weston**.

WASHINGTON.



CUTTING UP A WHALE.

QUESTIONS ON THE MAP.

Situation.—What country on the north of Washington Territory? What division on the east? What state on the south? What forms the western boundary? What large river forms a large part of the southern boundary? What degrees of latitude nearly mark its limits north and south? What is the distance between these limits according to the scale of miles? What degree of longitude marks its eastern limit? How many miles from this meridian across the territory to the Pacific Ocean?

Surface.—What is the nature of the surface west of the Columbia River? What east of this river? What range of mountains extends through the territory from north to south? Name and locate some of the highest peaks. What important valley largely within this territory? What is the nature of the coast?

Lakes and Rivers.—What large river crosses this territory? Describe its course. What are chief tributaries on the north? What on the east? What rivers on the western slope? What lake, and where? What other important inland waters, and in what part?

Counties and Cities.—Name the counties that border on the Pacific Ocean. Name those that border on its connected inland waters. Name the tier of counties, north and south, next east of these waters. In what portion of the territory are the chief settlements? Name and locate the capital. Name the more important cities on the navigable waters in the north. Those on the Columbia River.

DESCRIPTION.

[Area, 69,180 square miles. Population (Census of 1880), 75,116; 1883, estimated, 125,000.]

I. SITUATION AND EXTENT.

Situation.—Washington Territory lies north of Oregon, and borders on the Pacific on the west, and British Columbia on the north. It is included between $45^{\circ} 32'$ and 49° north latitude, and 117° and $124^{\circ} 28'$ west longitude.

Extent.—Its length east and west is 340 miles, and its width 200 miles. Its area is thus somewhat less than that of Oregon, which state it resembles both in its general shape and its surface features.

II. SURFACE.

Washington, like Oregon, is crossed north and south by the Cascade Mountains, which divide it into Eastern Washington and Western Washington. The highest peaks of the Cascade Range are St. Helens, 12,000 feet, and Mount Rainier (Tacoma), 14,444, both volcanic cones, whose peaks are covered with perpetual snow, and whose upper slopes are covered with glaciers.

Western Washington, including about one-third of the area of the territory, is divided into the tide-water basin of the Columbia in the south, the Chehalis valley in the middle, and the Puget Sound basin in the north. The Coast Range extends in broken ridges along the Pacific near the coast. In the north these mountains are known as the Olympic Range, of which the highest summit is Mount Olympus, 8,150 feet.

The western slopes of these mountains feed numerous short and rapid streams which flow directly into the Pacific Ocean.

Eastern Washington, which includes two-thirds of the area of the territory, is for the greater part a plateau of moderate elevation traversed by the Columbia River and its tributaries. The surface of this plateau consists of several broad plains or prairies well adapted for grazing and wheat-raising, divided here and there by the spurs of the Cascade Range and by many irregular and abrupt changes of elevation. The rivers are broken by numerous rapids, and the scenery is varied and picturesque.

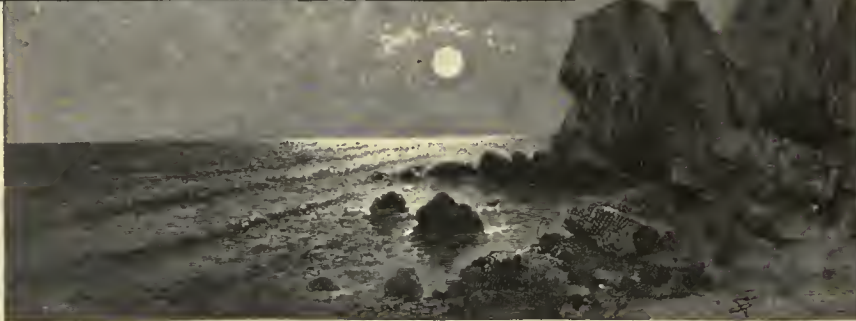
In the extreme north-eastern and south-eastern parts of the territory are found the broken spurs of the Pend d'Oreille, and the Blue Mountains; the former extending into the territory from Idaho, and the latter from Oregon.

III. DRAINAGE.

The Columbia River drains the entire eastern part of the territory, and also a considerable part of the region west of the Cascade Range. It receives the water of a number of noble streams in part or entirely within the borders of the territory. Among these are the Cowlitz, Klikitat, Yakima, Okanogan, Pend d'Oreille, Spokane, Snake, and Walla-Walla.

The other drainage systems include the rivers flowing into the Puget Sound and the Strait of Juan de Fuca, and those emptying directly into the Pacific Ocean. Some of these streams, though short, are navigable to a considerable distance, and are of value in lumbering and shipping operations. The Chehalis, flowing into Gray's Harbor on the coast, is the most important.

Puget Sound is a magnificent arm of the sea, extending far into the



CAPE FLATTERY.

interior, and affording great commercial facilities. It is navigable for the largest ship; and its network of deep tide-water channels is unsurpassed in any quarter of the globe.

IV. CLIMATE.

Washington, like California and Oregon, has two seasons, — the rainy and the dry; but the rainfall is greater than in California, and the dry season is shorter. Around Puget Sound the winters are exceedingly mild for so high a latitude.

Eastern Washington, on account of its position to the east of the Cascade Mountains, has a much lighter rainfall than Western Washington, and much colder winters.

The territory, however, in all parts, has a much milder climate than eastern states of the same latitude; and this is mainly due to the Japan current, which renders the sea much warmer than it is in similar sections of the eastern coast of the continent. This action is similar to that of the Gulf Stream on the western coast of Europe.

V. RESOURCES.

The natural resources of Washington are of the most splendid character. The soil is rich and productive, easily tilled, and adapted to the production of cereals. Extensive plains in the eastern part of the territory afford fine pasturage for live-stock. The bays and rivers abound in fish.

Western Washington is very heavily wooded, the forest trees consisting mainly of pine, fir, spruce, and cedar. This whole section is also underlaid by the richest deposits of coal.

The territory has great commercial advantages. It is deeply penetrated by Puget Sound, whose waters are navigable for more than a hundred miles for the largest vessels, thus affording excellent facilities for the ocean shipment of lumber and the products of the fields and mines of the territory.

VI. INDUSTRIES.

The industries of Washington are as varied as its resources. Large numbers of the population are engaged in farming and lumbering. Coal-mining is rapidly developing, the fisheries are important and valuable, and an extensive foreign and domestic trade is growing up with the completion of the railroad lines to the east.

Agriculture. — Farming is the leading occupation, and wheat is the chief product, of which great quantities are raised for export.

On the extensive grazing-grounds of Eastern Washington stock-raising is an important source of wealth.

In 1880 there were nearly 500,000 acres of improved land in farms, valued at over \$13,844,000. The chief productions were 566,000 bushels of barley, 1,571,000 bushels of oats, 1,921,000 bushels of wheat, 703,000 pounds of hops, 1,035,000 bushels of potatoes. The value of live-stock was \$4,852,000, and the total farm product was valued at \$4,212,000.

Lumbering. — In the Puget Sound basin the cutting, sawing, and shipping of lumber is a leading pursuit. Ship-building is also carried on to a considerable extent, and spars are shipped to the Atlantic coast.

Mining. — Gold-mines are worked to some extent in the mountain sections, but the mineral wealth consists chiefly in extensive coal deposits in the Puget Sound basin. The best known coal-mines are those of Bellingham Bay, Seattle, Renton, Newcastle, and Carbon Hill.

Fisheries. — On the Columbia River there are extensive salmon canneries. The fisheries on the coast are also of considerable value. In 1880 the value of the seal fisheries product was over \$61,000.

Manufacturing. — The manufactures of Washington are in their infancy. They consist principally of lumber, flour, machinery, iron-work, and ship stores.

Commerce. — It is connected with the east by the Northern Pacific Railroad, and by branch lines with Oregon and California. This great line of railway, the shortest of the transcontinental lines, is already exercising a great influence on the development of the territory. It is opening up new routes of travel, and bringing together distant parts, thus cementing the bonds of the future great commonwealth of the North-west. It is also utilizing the magnificent harbors of the Puget Sound, and bringing forward the exhaustless stores of wealth that have been locked up in the mines and forests of the territory.

The Columbia River is navigable throughout the territory with the exception of a few rapids, affording good facilities for the transportation of wheat.

The chief exports of Washington are wheat, lumber, coal, wool, live-stock, and fish. The imports are all kinds of manufactured articles.

VII. EDUCATION.

Washington has laid the foundation for a good system of public schools. The schools are under the general control of a superintendent of public instruction, appointed by the governor and council for a term of two years, and of county superintendents of schools, elected by the people. Each school district has a local board of three school directors. The Territorial University is established at Seattle.

VIII. GOVERNMENT.

Washington has a territorial form of government, subject to the provisions of the United States statutes.

The executive officers consist of the governor and the secretary, appointed by the President of the United States, with the consent of the Senate, for a term of four years.

The Legislature consists of the Council, of nine members, and the House of Representatives, of thirty members, elected by the people.

The judicial power is vested in the Supreme Court, the judges of which are appointed by the President and Senate of the United States for a term of four years; in district courts, county probate courts, and justices' courts, the judges of which are elected by the people.

IX. HISTORY.

When the Territory of Washington was organized, in 1853, it included all of the present area, and also Idaho and considerable parts of Montana and Wyoming.

In 1863 the territory was reduced to its present limits upon the organization of the territories to the east of Washington. The settlement of the boundary disputes with Great Britain, the discovery of gold in California, and the completion of the Pacific Railroad, have been the main causes of the growth of the territory.

The north-west boundary had long been a matter of dispute with Great Britain, and was finally settled as to the mainland in 1846. From that time the only question unsettled was the true boundary line through the channel of the Strait of San Juan de Fuca. This resulted in the joint occupancy of the San Juan Islands, ten in number, by the United States and Great Britain. In the year 1872 these islands were decided to belong to the United States by the Emperor of Germany, to whom the question was submitted for arbitration, and they thus came under the exclusive control of the territory.

X. POLITICAL DIVISIONS.

Washington Territory comprises twenty-six counties and the following leading cities and towns: —

Olympia, capital of the territory, and county seat of Thurston County, is situated at the head of Puget Sound. It is connected by a branch road with the main line of the Northern Pacific Railroad, and has most excellent facilities for commerce

and general trade. Its harbor is safe and commodious, and is especially adapted for the lumber trade and for ship-building.

Seattle, county seat of King County, is situated on the eastern side of Puget Sound, at the mouth of the Dawamish River. It is one of the leading financial and business centers of the territory, and has great commercial advantages. It is surrounded by a rich coal and lumber region, which is being rapidly developed. The principal manufactures are iron and lumber. It is the seat of the University of Washington Territory.

Tacoma, in Pierce County, about midway between Seattle and Olympia, on Puget Sound, is the western terminus of the Northern Pacific Railroad. It has an excellent harbor, and is largely engaged in the manufacture and shipping of lumber. Here are located the extensive machine-shops of the western division of the railroad, and its business is being largely extended since the completion of the road to the east.

Walla-Walla (by the census of 1880, the most populous town in the territory) is situated in the south-eastern part in the rich and fertile Walla-Walla valley. It is connected by railroad with the Columbia River at Wallula, and is extensively engaged in trade and the shipment of wheat, wool, etc.

Vancouver, county seat of Clarke County, is situated on the Columbia,

100 miles from its mouth. It is one of the oldest settled points in the territory, and has considerable trade and shipping.

Spokane, on the Spokane River and the Northern Pacific Railroad, has an extensive water-power, which is being considerably developed.

Whatcom, on Bellingham Bay, is a shipping point for coal and lumber.

Colfax, county seat of Whitman County, is a growing town in the center of a fine agricultural district.

Tumwater, closely connected with Olympia in its business and manufacturing interests, has immense water-power, which is utilized in manufacture of lumber, flour, etc.

Cascades, at the head of the lower rapids of the Columbia, is largely engaged in trans-shipment of the commerce of that river. A ship canal is being built at this point.

Wallula, on the upper Columbia, is the terminus of a railroad into the fertile Walla-Walla valley.

Oysterville is the most important town on the Pacific coast, and is largely engaged in the taking of sea-fish.

Port Townsend, county seat of Island County, is the chief port of entry for the entire Puget Sound region, and the headquarters of the military division of the Columbia.

Ainsworth, in Whitman County, is a growing commercial town on the Northern Pacific Railroad, and the terminus of an important branch of that line.

Wilkeson and **Carbonado** are growing railroad towns in King County.

Other important places are **Dayton**, in Columbia County; **Steilacoom**, in Pierce County; **Blakely**, in Kitsap County; **San Juan**, in San Juan County; **Yakima**, in Yakima County; and **Port Gamble**, in Kitsap County.

ALASKA.



QUESTIONS ON THE MAP.

Situation.—In what part of North America is Alaska? What bounds it on the north? What on the east? What waters form its southern and western boundaries? What parallel marks its most northern limit? Its most southern limit?

Surface.—What important continental range of mountains terminates in Southern Alaska? What peninsula and islands indicate its course? What mountains to the north of this? What important mountain peaks, and where are they located? Which is the highest? What is the nature of the southern coast of Alaska? Of the western coast?

Rivers, Lakes, and Towns.—What is the principal river of Alaska? Describe its course. In what general direction do most of the streams flow? Has it many lakes? What is their size, and where are they mostly located? Name the largest one. Name and locate the capital.

DESCRIPTION.

[Area, 531,409 square miles. Population (Census of 1880), 33,426.]

I. SITUATION AND EXTENT.

Situation.—Alaska, which includes the extreme northern and western parts of our continent, is separated from the rest of the United States by British Columbia. Its area is considerably greater than that of the original thirteen states.

The mainland extends from the mouth of the Portland Canal, $54^{\circ} 40'$ north latitude, to the shores of the Arctic Ocean, $71^{\circ} 23'$ north latitude, and lies between the meridians of 130° and 167° west longitude. The

Island of Attoo, the most westerly of the Aleutian group, which is included in Alaska, is situated in 173° *east* longitude. This island is as many degrees west of San Francisco as that city is west of Maine.

Extent.—Alaska is 1,100 miles in length north and south, and 800 miles in width. Its area is nearly four times that of California.

In consequence of the numerous bays, inlets, and fiords that indent its shores, together with its long chain of islands stretching across the Pacific almost to Asia, Alaska has a coast line of not less than 20,000 miles.

Its most northerly point is Cape Barrow; and the most westerly point of the mainland is Cape Prince of Wales.

II. SURFACE.

Mountains.—A great mountain-chain called the Coast Range extends along the Pacific from British Columbia to the peninsula of Alaska. The Alaskan portion is from 50 to 75 miles wide, and many of its summits rise to a great height. Mount St. Elias, estimated to exceed 19,000 feet, is the loftiest peak in North America. Mount Fairweather exceeds 16,000 feet, and numerous other mountains exceed 12,000 feet in height.

The slopes of this mighty range are covered with thousands of glaciers, that push their slow-moving masses down to the bays and fiords that indent the coast. Some of these glaciers are 40 miles long, and from 10 to 15 miles wide. The glacial scenery of this region is by far the grandest in the world. The long chain of the Aleutian Islands stretching out into the Pacific almost to Asia is a continuation of this chain of mountains, though the island peaks seldom exceed a height of 5,000 feet.

The interior of Alaska has been but little explored. It consists of rolling grassy plains, and mountains covered with scattered groves of pine and spruce.

III. DRAINAGE.

The Yukon, the chief river of Alaska, is one of the great rivers of the globe.

It rises in British Columbia, and flows into the Pacific. It is navigable for steamers for 2,000 miles, and is a mile wide at a distance of 600 miles from the sea. The only large river of Alaska that flows into the Arctic Ocean is the Colville.

IV. CLIMATE.

Two thirds of Alaska is in the north temperate zone, and one third in the Arctic zone.

Owing to the influence of the warm Japan current, sometimes called the Gulf Stream of the Pacific, that bathes the western shores of Alaska,

the climate of the coast belt and of the Aleutian Islands is temperate. The rainfall of this region is very heavy, owing to the condensation, by the mountains, of the warm rain-winds which come, heated and vapor-laden, from the Japan current.

At Sitka, and southward along the coast, and westward throughout the Aleutian chain of islands, it rains or snows two days out of three during the entire year.

East of the Coast Range, and on the vast plains that border on the Arctic Ocean, the cold in winter is intense, the thermometer falling to 70° below zero.

At Sitka, during the longest days of summer, there is no darkness at midnight. The sun just dips below the horizon, and then rises again.

V. RESOURCES AND INDUSTRIES.

The resources of Alaska consist chiefly of the fish which swarm in its innumerable bays, fiords, and rivers; of the furs of its wild animals; and of its forests and minerals.

Fisheries.—Salmon abound in all the streams of Alaska; and extensive canneries are already established on the Yukon River, the Chilcat, and among the islands of the Alexander Archipelago.

The cod fisheries off the coast are carried on by a considerable number of vessels from San Francisco.

The Arctic Ocean is the resort of many whaling-vessels, which push their way in the summer months into these dangerous seas in pursuit of whales.

Furs.—The principal fur-bearing animals are the seal, sea-otter, fox, ermine, marten, and beaver. The most valuable of these is the fur-seal, which is found in vast numbers on the two small islands of St. Paul and St. George. These two islands are leased by the United States Government to the Alaska Fur Company. The annual product of the seal fisheries, as reported in the census of 1880, is valued at nearly \$2,100,000; and of other fisheries, over \$500,000.

Forests.—The timber lands of Alaska are limited chiefly to the coast belt of South-western Alaska. The trees most valuable for lumber are the yellow cedar, and the spruce or Sitka pine.

Minerals.—Gold has recently been discovered on the tributaries of the Yukon, but the mines have not as yet been extensively worked.

Vegetation.—The agricultural resources of Alaska are limited. Potatoes and vegetables can be grown along the western coast and on the islands, but the cereals will not ripen.

VI. GOVERNMENT.

No territorial government has yet been organized in Alaska. This territory was purchased from Russia in 1867 for \$7,200,000. The population of the entire territory consists of a few hundred whites and about 33,000 natives.

Sitka is a port of entry in charge of a United States revenue officer.

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